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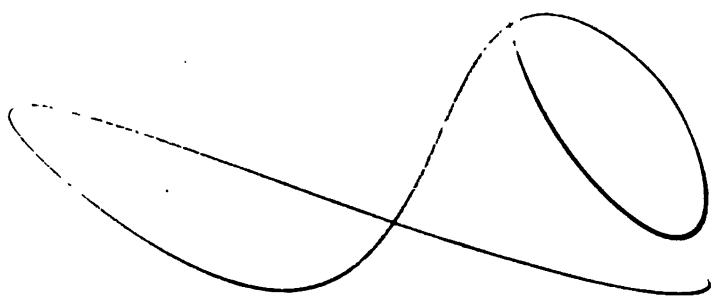
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**FROM THE
UNITED STATES GOVERNMENT**



**REPORTS OF THE
DEPARTMENT OF THE INTERIOR**

FOR THE FISCAL YEAR ENDED JUNE 30

1917



**VOLUME II
INDIAN AFFAIRS
TERRITORIES**



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7

CONTENTS.

	Page.
Report of the Commissioner of Indian Affairs.....	1
A declaration of policy.....	3
Declaration of policy in the administration of Indian Affairs.....	3
The Indian and the war.....	6
Liberty loan bonds.....	7
Education.....	9
Health.....	16
Choctaw and Cherokee health drives.....	19
The suppression of intoxicants.....	21
Farming.....	25
Stock raising.....	32
Irrigation.....	34
Reimbursable funds.....	37
Native industries.....	39
Road and bridge work.....	39
Motion pictures.....	40
Indian traders.....	40
Debts of Indians.....	40
Exhibition Indians.....	41
Annuity and per capita payments.....	41
Destitute Indians.....	41
Sioux allotment benefits.....	42
Tribal trust funds.....	42
Individual Indian moneys.....	42
Indian employment.....	43
Allotments.....	45
Classification and appraisalment of surplus Indian lands.....	46
Land purchases.....	46
Extension of trust periods.....	47
Osage oil and gas leases.....	47
Oil and gas industry outside the Five Civilized Tribes and Osage Nation..	48
Fee patents to Indians.....	49
Competency commissions.....	49
Five Civilized Tribes.....	49
Probate work in Oklahoma.....	50
Sale of remaining unallotted Choctaw and Chickasaw tribal lands.....	52
Estates of deceased Indians.....	53
New system of bookkeeping.....	54
Forestry.....	54
Court decisions.....	56
Legislation.....	58
Seminole Indians in Florida.....	63
Rocky Boy Indians.....	64
Alabama Indians of Texas.....	65
Cooperation of missionaries and others.....	66
Conclusions.....	66

Report of the Commissioner of Indian Affairs—Continued.

Statistical tables—

	Page.
TABLE 1. Work and force of Indian Office since 1899, compared.....	69
2. Indian population of the United States, 1917.....	69
3. Indians under Federal supervision, allotted and unallotted.....	78
4. Marriages, missionaries, churches, language, dress, citizenship, crimes, misdemeanors.....	81
5. Areas of Indian lands, allotted and unallotted.....	86
6. Reservations, authority for establishing.....	89
7. Lands set aside temporarily for mission organizations.....	108
8. Patents in fee issued to mission organizations.....	108
9. Industries other than farming or stock raising.....	109
10. Incomes of Indians.....	116
11. Use of agricultural lands, farming, leasing.....	121
12. Use of grazing lands, stock raising, leasing.....	126
13. Employment of Indians.....	130
14. Vital statistics, housing and disease.....	133
15. Hospitals and sanatoria.....	138
16. Indians, self-supporting, and those receiving rations and miscellaneous supplies issued.....	141
17. School population, number in school, capacity.....	145
18. Schools, location, enrollment, attendance.....	152
19. Schools, average attendance and appropriations since 1876..	161
20. Demonstration farms.....	162
21. Experimentation farms.....	163
22. Suppression of liquor traffic.....	164
23. Timber on reservations, sawmills, timber cut.....	165
24. Areas irrigable and under projects, expenditures.....	168
25. Miles of ditches, use of irrigated areas.....	171
26. Allotments approved and made.....	174
27. Sales of allotted lands.....	175
28. Patents in fee issued.....	176
29. Removal of restrictions on alienation of land.....	179
30. Certificates of competency issued under act of June 25, 1910.....	179
31. Certificates of competency issued to Kaw and Osage Indians.....	179
32. Lands leased for mining, production of minerals, and royalty.....	180
33. Buildings erected.....	181
34. Buildings under construction.....	182
35. Live stock belonging to Indians, sold and slaughtered.....	184
36. Government property valuations classified.....	190
37. Property of Indians, tribal and individual, value.....	194
38. Employees in Indian school and agency service.....	199
39. Employees, miscellaneous, field.....	203
40. Employees in Indian Service, recapitulation.....	205
41. Account of Commissioner of Indian Affairs.....	205
42. Sales of Indian lands, receipts and disbursements.....	206
43. Treaty liabilities of the United States to Indians.....	208
44. Pro rata shares of tribal trust funds settled.....	210
45. Funds of Five Civilized Tribes in banks.....	210
46. Volume of business in Indian warehouses.....	211
47. Expense at warehouses.....	211
Supplies for the Indian Service.....	213

	Page.
Report of the Board of Indian Commissioners.....	325
Osage Indians.....	327
Eastern Cherokees.....	328
Tuberculosis among Choctaws.....	328
Eufaula Indian School.....	328
Navajo Indians.....	328
Walapai Indians.....	329
Papago Indians.....	329
San Carlos Apaches.....	329
Mission Indians.....	330
Landless Indians.....	330
Soboba Reservation.....	331
Pueblo Indians.....	331
Pima Indians.....	332
Salt River Reservation.....	332
Sherman Institute.....	332
Tuberculosis in Oklahoma.....	333
Purchase of supplies.....	333
Returned-student problem.....	334
Field matrons.....	334
Indian labor in Arizona.....	335
Commissioner Sells's policy.....	336
Rifle ranges for schools.....	336
Improvement of Indian horses.....	337
New York Indians.....	337
Board meetings.....	338
Death of Commissioner Walker.....	338
Appendices.....	339
Report on the Osage Indians.....	339
Report on the Eastern Cherokees.....	351
Report on tuberculosis among the Choctaw and Chickasaws.....	352
Report on the Eufaula Boarding School.....	360
Report on the Leupp Reservation.....	363
Report on the Walapai Reservation.....	364
Report on the San Xavier Agency, Papago Reservation.....	366
Report on the San Carlos Reservation.....	368
Report on the Mission Indians.....	368
Report on the landless Indians of California and Nevada.....	369
Report on the Soboba Indian Agency.....	371
Report on the Pueblo Agency and day schools.....	372
Report on the Pima Reservation.....	377
Report on the Salt River Reservation.....	378
Report of the Governor of Alaska.....	379
General review of conditions.....	381
Trade and commerce.....	382
Agricultural development.....	382
Too much reservation.....	383
Population a requisite.....	383
More liberal policies.....	384
Political pottage.....	385
The old-time prospector.....	386
Settling on the land.....	387
The natives of Alaska.....	388

Report of the Governor of Alaska—Continued.	Page.
The Alaska native school service.....	392
The Metlakatla Indians.....	394
Needs of the service.....	396
The Alaska native medical service.....	396
Alaska reindeer service.....	398
Fisheries.....	400
Salmon hatcheries.....	401
Number of persons employed.....	402
Money invested.....	402
Quantity and value of products.....	402
The salmon industry.....	403
Salmon canning.....	403
Mild curing of salmon.....	403
Other salmon industries in 1916.....	404
Halibut.....	404
Cod.....	405
Herring fishery.....	405
Whales.....	406
Minor fishery products.....	406
Fur-seal service.....	406
Minor fur-bearing animals.....	407
Leasing of island for fur farms.....	408
Territorial fish commission.....	409
Alaska's mineral supplies.....	410
Gold and silver.....	410
Copper.....	411
Tin.....	412
Tungsten.....	412
Antimony.....	413
Lead.....	413
Platinum.....	414
Chromite.....	414
Nickel and cobalt.....	414
Quicksilver.....	414
Molybdenite and bismuth.....	415
Iron.....	415
Petroleum.....	415
Miscellaneous minerals.....	416
National forests of Alaska.....	416
Alaska's mineral production.....	418
Mineral production.....	419
Gold placer mining.....	419
Gold lode mining.....	419
Copper mining.....	419
Tin mining.....	419
Antimony mining.....	420
Tungsten mining.....	420
Mineral fuels.....	420
Review by districts—	
Southeastern Alaska.....	420
Copper River basin.....	421
Prince William Sound.....	421

Report of the Governor of Alaska—Continued.

	Page.
Review by districts—Continued.	
Kenai Peninsula and Susitna regions.....	422
Southwestern Alaska.....	422
Yukon basin.....	422
Kuskokwim basin.....	423
Seward Peninsula.....	423
General development along the line of the Government railroad.....	424
Railroad matters elsewhere.....	425
The Alaska fund.....	425
The Alaska insane.....	426
Detention hospitals.....	427
Alaska Pioneers' Home.....	427
Alaska coast surveys.....	428
Aids to navigation.....	428
Roads and trails.....	429
The Alaska road commission.....	430
Agriculture in Alaska.....	431
Agricultural fairs.....	432
Agricultural experiment stations.....	433
Legumes.....	434
Hardy strawberries.....	435
Fairbanks station.....	435
Kodiak station.....	436
Matanuska station.....	436
Sitka station.....	436
Alaska National Guard.....	436
Mail service.....	437
Airplane lumber.....	438
Prohibition in Alaska.....	438
United States commissioners.....	439
Labor conditions.....	439
Commission of crime.....	439
Mine experiment stations.....	440
Alaska water power.....	440
The Territorial legislature.....	441
Tourist travel.....	442
Health conditions.....	443
Relief of destitution.....	443
Territorial officers.....	444
The Alaska game laws.....	444
Public buildings.....	445
Territorial banks.....	445
Public land surveys.....	446
Commerce.....	446
Assessed valuation and taxes.....	448
Public schools.....	449
Number of schools.....	451
Schools in incorporated towns.....	452
Liquor traffic among the natives.....	452
Cable and telegraph lines.....	455
Coal mine development.....	456
The governor's office.....	456

Report of the Governor of Alaska—Continued.

Appendixes—	Page.
A. Statement of library and museum fund.....	459
B. Official directory.....	462
C. Imports and exports.....	467
D. Newspapers in Alaska.....	474
E. Incorporated towns.....	474
F. Laws relating to Alaska passed at second session Sixty-fourth Congress.....	475
G. Government publications on Alaska.....	482
Report of the Governor of Hawaii.....	495
War conditions.....	497
National Guard of Hawaii.....	497
General conditions.....	497
Charts—	
Population.....	Facing 498
Public lands.....	Facing 498
Educational problems.....	Facing 498
Comparative table of births.....	Facing 498
Increase or decrease of population.....	Facing 498
Food problems.....	Facing 498
Problems of business by races.....	Facing 498
Elections.....	498
Legislature.....	501
County and city and county governments.....	502
Finances.....	503
Bonded debt.....	503
Receipts and disbursements.....	505
Special funds.....	508
Taxation.....	510
Corporations.....	515
Banks.....	516
Insurance.....	516
Commerce.....	518
Transportation facilities.....	520
Interisland traffic.....	520
Traffic with the mainland.....	521
Through service.....	522
Steam railroads.....	523
Street railroads.....	524
Lighthouses.....	524
Telegraphs and telephones.....	525
Postal service.....	527
Population, immigration, and labor.....	529
Public lands.....	536
Homesteading.....	536
Sales for other than homestead purposes.....	536
Leases and licenses.....	537
Transfers, exchanges, and purchases for public purposes.....	537
Patents and commutations.....	538
Revenues and disbursements.....	538
National parks.....	539

Report of the Governor of Hawaii—Continued.	Page
Survey department.....	539
Field work.....	539
Office work.....	542
Bureau of Agriculture and Forestry.....	543
Forestry.....	543
Entomology.....	544
Animal industry.....	546
Division of hydrography.....	547
Hawaii Agricultural Experiment Station.....	548
Territorial marketing division.....	553
Public works.....	554
Oahu.....	554
Hawaii.....	557
Maui.....	559
Board of harbor commissioners.....	560
Oahu.....	560
Hawaii.....	561
Maui.....	562
Kauai.....	562
Public utilities commission.....	563
Loan funds.....	564
Oahu loan fund commission.....	564
Maui loan fund commission.....	564
Hawaii loan fund commission.....	565
Schools.....	565
Japanese schools.....	570
College of Hawaii.....	570
Industrial schools.....	572
Library of Hawaii.....	574
Archives of Hawaii.....	575
The courts.....	576
Territorial courts.....	576
Juvenile court.....	578
Land court.....	578
Federal court.....	579
Attorney general's department.....	579
Territorial prison.....	580
Public health.....	581
Morbidity statistics.....	582
Sanitation.....	582
Rat and mosquito campaign.....	583
Medical inspection of schools.....	584
Pure food.....	586
Insane asylum.....	586
Tuberculosis.....	587
Leprosy.....	588
United States leprosy investigation.....	589
Vital statistics.....	590
United States Public Health Service.....	590
United States Naval and Military Affairs.....	593
National Guard of Hawaii.....	594

Report of the Governor of Hawaii—Continued.	Page.
United States Internal Revenue Service.....	596
United States Climatological Service.....	599
Appendix.....	599
Territorial register and directory.....	599
Federal officials.....	603
National Guard personnel.....	603
Hawaiian department.....	603
Naval department.....	605
Map of Territory	At end.

ILLUSTRATION.

Map of Alaska	At end
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**REPORT OF THE COMMISSIONER OF
INDIAN AFFAIRS.**

18924°—INT 1917—VOL 2—1

REPORT OF THE COMMISSIONER OF INDIAN AFFAIRS.

DEPARTMENT OF THE INTERIOR,
OFFICE OF INDIAN AFFAIRS,
Washington, D. C., October 15, 1917.

SIR: I have the honor to submit this the eighty-second annual report of the Bureau of Indian Affairs for the fiscal year ended June 30, 1917.

A DECLARATION OF POLICY.

A careful study of the practical effects of governmental policies for determining the wardship of the Indians of this country is convincing that the solution is individual and not collective. Each individual must be considered in the light of his own environment and capacity for larger responsibilities and privileges.

While ethnologically a preponderance of white blood has not heretofore been a criterion of competency, nor even now is it always a safe standard, it is almost an axiom that an Indian who has a larger proportion of white blood than Indian partakes more of the characteristics of the former than of the latter. In thought and action, so far as the business world is concerned, he approximates more closely to the white blood ancestry.

On April 17, 1917, there was announced a declaration of policy for Indian affairs, as follows:

DECLARATION OF POLICY IN THE ADMINISTRATION OF INDIAN AFFAIRS.

During the past four years the efforts of the administration of Indian affairs have been largely concentrated on the following fundamental activities—the betterment of health conditions of Indians, the suppression of the liquor traffic among them, the improvement of their industrial conditions, the further development of vocational training in their schools, and the protection of the Indians' property. Rapid progress has been made along all these lines, and the work thus reorganized and revitalized will go on with increased energy. With these activities and accomplishments well under way, we are now ready to take the next step in our administrative program.

The time has come for discontinuing guardianship of all competent Indians and giving even closer attention to the incompetent that they may more speedily achieve competency.

Broadly speaking, a policy of greater liberalism will henceforth prevail in Indian administration to the end that every Indian, as soon as he has been determined to be as competent to transact his own business as the average white man, shall be given full control of his property and have all his lands and moneys turned over to him, after which he will no longer be a ward of the Government.

Pursuant to this policy, the following rules shall be observed:

1. *Patents in fee.*—To all able-bodied adult Indians of less than one-half Indian blood, there will be given as far as may be under the law full and complete control of all their property. Patents in fee shall be issued to all adult Indians of one-half or more Indian blood who may, after careful investigation, be found competent, provided, that where deemed advisable patents in fee shall be withheld for not to exceed 40 acres as a home.

Indian students, when they are 21 years of age, or over, who complete the full course of instruction in the Government schools, receive diplomas and have demonstrated competency will be so declared.

2. *Sale of lands.*—A liberal ruling will be adopted in the matter of passing upon applications for the sale of inherited Indian lands where the applicants retain other lands and the proceeds are to be used to improve the homesteads or for other equally good purposes. A more liberal ruling than has hitherto prevailed, will hereafter be followed with regard to the applications of noncompetent Indians for the sale of their lands where they are old and feeble and need the proceeds for their support.

3. *Certificates of competency.*—The rules which are made to apply in the granting of patents in fee and the sale of lands will be made equally applicable in the matter of issuing certificates of competency.

4. *Individual Indian moneys.*—Indians will be given unrestricted control of all their individual Indian moneys upon issuance of patents in fee or certificates of competency. Strict limitations will not be placed upon the use of funds of the old, the indigent, and the invalid.

5. *Pro-rata shares—trust funds.*—As speedily as possible their pro rata shares in tribal trust or other funds shall be paid to all Indians who have been declared competent, unless the legal status of such funds prevents. Where practicable the pro rata shares of incompetent Indians will be withdrawn from the Treasury and placed in banks to their individual credit.

6. *Elimination of ineligible pupils from the Government Indian schools.*—In many of our boarding schools Indian children are being educated at Government expense whose parents are amply able to pay for their education and have public school facilities at or near their homes. Such children shall not hereafter be enrolled in Government Indian schools supported by gratuity appropriations, except on payment of actual per capita cost and transportation.

These rules are hereby made effective, and all Indian Bureau administrative officers at Washington and in the field will be governed accordingly.

This is a new and far-reaching declaration of policy. It means the dawn of a new era in Indian administration. It means that the competent Indian will no longer be treated as half ward and half citizen. It means reduced appropriations by the Government and more self-respect and independence for the Indian. It means the ultimate absorption of the Indian race into the body politic of the Nation. It means, in short, the beginning of the end of the Indian problem.

In carrying out this policy, I cherish the hope that all real friends of the Indian race will lend their aid and hearty cooperation.

CATO SELLS,
Commissioner.

Approved:

FRANKLIN K. LANE,
Secretary.

The cardinal principle of this declaration revolves around this central thought—that an Indian who is as competent as an ordinary white man to transact the ordinary affairs of life should be given untrammelled control of his property and assured his personal rights in every

particular so that he may have the opportunity of working out his own destiny. The practical application of this principle will relieve from the guardianship of the Government a very large number of Indians who are qualified to mingle on a plane of business equality with the white people. It will also begin the reduction of expenditures, and afford a better opportunity for closer attention to those who will need our protecting care for some years longer.

A vitally important result also will be obtained in placing a true ideal before those Indians remaining under guardianship. It will be a strong motive for endeavoring to reach the goal of competency, and prove a material incentive to a sincere effort for that end.

This new declaration of policy is calculated to release practically all Indians who have one-half or more white blood, although there will be exceptions in the case of those who are manifestly incompetent. It will also give like freedom from guardianship to those having more than one-half Indian blood when, after careful investigation, it is determined that they are capable of handling their own affairs. This latter class, however, will be much more limited since only about 40 per cent of the Indians of the country speak the English language and the large majority of this latter class still greatly need the protecting arm of the Government.

As an additional safeguard for those Indians of half or less white blood, a homestead commensurate with the value of the property to be patented may be retained by the allottee and made inalienable except by approval of the Secretary of the Interior. In other cases of manifest incompetency, the trust period on their land will be extended whenever it is deemed beneficial and in the interest of the Indians themselves.

As a corollary of this central idea of the declaration, a more liberal policy has been adopted in the sale of inherited lands and Indian allotments, and the Indians are urged to sell that portion of their land which is not available or adaptable for their own uses and utilize the proceeds for the improvement of their remaining land or increasing their facilities for its fuller development by purchasing stock, machinery, etc.

A liberal policy is now being pursued in allowing the use of the proceeds of the sale of the lands of old and indigent Indians, and following the general line of procedure of State laws, in all sales of allotted lands where circumstances warrant it, a part of the allotment may be retained as a homestead so that the Indian may not be deprived of a home. Especially is this desirable where an Indian and his wife need such place during their declining years.

THE INDIAN AND THE WAR.

The peculiar conditions applicable to each separate band or tribe of Indians caused their registering for the military census under the act of May 18, 1917, to be assigned to this bureau. There were instances where the registration could be handled by the State authorities more expeditiously and with less expense than by this bureau and the highest degree of cooperation existed in order that the work would be a success. The Secretary of War placed the Indian Service upon the same plane with the States and it had control of this branch of the work. All of our employees were required to serve as registrars and as members of the registration board without compensation, and but little expense was incurred in carrying on this work. The draft of those Indians who are citizens was handled by the local boards appointed by the President and in order that the claims of the Indians to exemption might be given consideration and presented in proper form, superintendents were instructed to appear on their behalf and assist them in every way possible.

The growing attitude of the Indian toward the world war is a credit to his race. A well-nigh limitless devastation and conflict is bringing to him its profound lesson that the highest authority and best social welfare must spring from a free and self-governing people. This awakening is especially noticeable among the younger generation, largely the product of our Indian schools, who are quick to catch the spirit of a new era. Reports on file indicate that a large number of voluntary enlistments have been made in the Army, Navy, and National Guard, or in some branch of the Military Establishment, by Indian students and ex-students alone. Many of the schools report 20 to 30, some from 40 to 50 enlistments. Among them is represented practically every tribe. Several enlisted for the aviation service and some were admitted to officers' training camps. A former student at the Carlisle School, Ernest Kick, was among the early accessions to the Princess Patricia Regiment of Canada and gave his life in the trenches of France. Sylvester Long Lance, a graduate of that school, is a lieutenant in the same regiment and received wounds in valorous action. Requests were repeatedly made for permission to form exclusively Indian organizations which, under the regulations of the War Department, could not be encouraged as proposed, but were significant of the loyal and active interest among the Indians.

I am deeply impressed by all that has come from the Indian's serious heart and mind in this time of incomprehensible strife and am sure that among the compensations that must follow will be his clearer vision of what constitutes well-organized society.

I hope and confidently believe that the native American soldiers will equip themselves with credit to the noble ancestry of their race.

LIBERTY LOAN BONDS.

With your approval, the matter of purchasing bonds of the first issue of the liberty loan was brought to the attention of the Indians and all employees of the Indian Service. Official information, with suitable subscription blanks, was sent to all superintendents and encouragement extended to them to participate in a movement offering investments both prudent and patriotic.

Considering the brief time allowed for fully presenting this important subject before the date fixed for closing subscriptions, the results impress me as a distinct and gratifying triumph. It is quite certain that many subscriptions were made by Indians, and some by service employees, which were not specifically reported, but the following are definitely known: Subscriptions by 1,147 employees, \$178,750; by 525 adult Indians \$3,273,450, by 851 Indians minors and students in Indian schools \$1,334,400; making a total of 2,623 subscriptions for \$4,786,600 in liberty loan bonds.

Of the foregoing, the employees and pupils of one of the leading schools subscribed \$15,000; employees in the Indian Office at Washington subscribed \$23,900; employees in the office of the superintendent of the Five Civilized Tribes subscribed \$16,300.

Probably the most noteworthy showing was the subscription of 67 Indians, including incompetents and minors, aggregating \$3,919,650. The individual amounts ranged from \$50 to \$640,000, but 20 of them being less than \$10,000 each. The largest subscription was by Jackson Barnett, through his guardian, a full blood, and one of the wealthiest of the Creek Indians. He also desired to donate \$50,000 to the Red Cross fund, but owing to legal objections it was deemed inadvisable to authorize such a gift. The individual moneys invested by these and many other Indian subscribers, it should be stated, were very largely either noninterest bearing or drawing less than the interest rate of the bonds. But while the Indians were readily attracted by the investment feature, they were willing and eager to contribute patriotic support to the Government. Many applications were made too late for acceptance under the regulation and many who were unable to purchase declared an intention to subscribe when the next issue is offered. Among the Apache subscribers of New Mexico, one wears a medal presented by the President for special service as a scout in the capture of the Geronimo band in 1882. Several other war scouts were liberal purchasers, and the only remaining strife with the old warrior line seems to be the friendly rivalry for owning bonds, for both the widow and son of Geronimo were subscribers, as was also the son of old Chief Victoria, long an enemy of the Government.

In view of the limited resources of great numbers of the Indians, ranging from near destitution to such conditions as yield a fair support but admit of no savings, the subscriptions reported and the expressions of attachment to the principles and institutions of the Government coming to me from every reservation eloquently attest the growth of Indian thought and sentiment along lines pertaining to the general welfare.

I regard the subscriptions by employees throughout the Indian Service as worthy of a special word. When it is known that the average annual salary of all employees is approximately \$750, or, on a per diem basis, about one-half that received by many groups of factory and mechanical trade workers, their response to the first call in the Nation's defensive need forms a very creditable record. The average per capita purchase of those subscribing for bonds was nearly double the highest increase of salary provided by the 5 and 10 per cent advance under legislation effective on July 1, 1917, and can be understood only as showing a willingness to sacrifice the immediate use of much more than the merited benefits of such legislation.

I venture here to digress for the expression of a conviction that has been with me since boyhood to emphasize another feature of the Liberty Loan Bond purchase, which I am persuaded will be of lasting benefit not only to the Indians but the entire population of our country.

It is the business side, the money saving habit. To my mind, the best barometer of a young man's future may be found in his disposition to accumulate. The Indian or white youth who has established a savings-bank account is apt to have a good character. Ordinarily he will be anxious to increase his deposit, and if so will make an effort to create and sustain such a reputation as will invite promotion. He will save rather than spend his earnings foolishly. The manliness of his attitudes and the inspiration from accomplishment will insure his advancement. As a boy, this is apparent; as a man it becomes an inheritance which stays with him throughout life.

Generally speaking Americans have become so rapidly rich and are so powerful as a Nation that we are in danger of being overfat and contented. The war has necessitated the conservation of our food supply; but we have yet to learn the lesson of universal saving, economy in conduct. Man has no stronger element, when developed, than the disposition to acquire property, own a home, and be a substantial factor in society. It stabilizes his life and makes him a better citizen, provided always that he is neither miserly nor a worshiper of the almighty dollar.

Thousands of men and women, boys and girls, have invested in Liberty Bonds who never before realized the satisfaction of property ownership. Others have introduced themselves to their first effort to restrain the spending habit. Altogether this epoch-making experience and its probabilities foretell a basic revolution which will immeasurably benefit present and future generations.

EDUCATION.

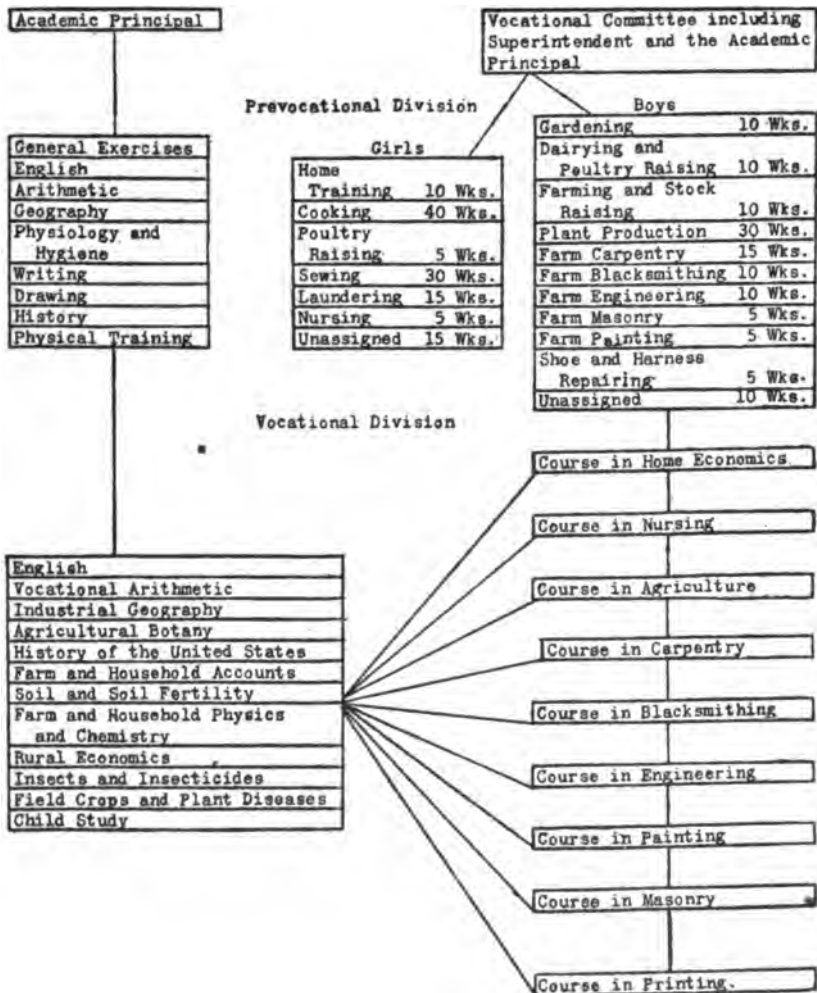
COURSE OF STUDY FOR INDIAN SCHOOLS.—In my annual report for the fiscal year 1916, a somewhat extended description was given of a new and uniform course of study which had been prepared for use in all the Indian schools. During the current year a strong effort has been made to develop and perfect the operation of this course.

Supervising officials have visited, with a few unavoidable exceptions, all the schools of their respective districts, giving counsel and aid in such ways as have led to a better understanding of the course of study and a more thorough compliance with its requirements.

During the year all of the schools were supplied with a diagrammatic representation of the course showing upon one page an epitome, or picture, of its scope for boarding schools, illustrating the two principal divisions above the primary grades and the academic and industrial subjects for each group under headings suggestive of appropriate organization and supervision. This was done to secure a more uniform understanding of the structural principles involved in comprehensive outlines of some 300 pages, and has been found to be helpful. It seems to me that this condensed diagram, with a few brief notes accompanying it, will be of sufficient public interest, particularly among educational people, to justify its inclusion here.

**Diagrammatic Representation
of the
Course of Study**

Superintendent



UNIFORM EXAMINATIONS.—A further step has been the preparation of uniform final examinations to be given in all schools to the pupils completing each academic or industrial course. These examinations were given in nearly all schools during the week beginning June 4.

Unfortunately, however, a few boarding schools had been compelled to close prior to the usual date of closing because of inability to comply with the act of September 7, 1916 (39 Stat. L., p. 741), which limited expenditures for school support or maintenance to \$200 per pupil per annum. While under favorable circumstances it might be and was found possible to properly operate vocational schools within this limitation, yet in some cases greatly increased costs of all supplies coupled with the reduced enrollment of pupils necessitated the closing of schools.

This could not be avoided in some 17 instances without exceeding the per capita cost fixed by law and at these schools it became necessary to furlough some of the employees. Examinations prepared at the schools were given instead of the uniform examinations.

Much importance is attached to the new course and results thus far are encouraging for a high standard of school work and attainment for the Indian pupils. The aim of the course is to fit thoroughly the student to become an efficient wage earner and citizen, qualified to make his way successfully and with credit to himself and his race.

The introduction of a course of study more comprehensive and systematic than that adopted by many, perhaps most, of the public schools was not attempted without facing the possibility of disappointments; but these, I am glad to state, have been few. The results of the first full year have been in a promising degree successful as regards better classification of pupils, better organization of school employees, more definite educational aims, more clearly defined outlines for preparation, instruction, and study; in general, a knitting together of loose and variant methods and theories of educational work into something more uniform, practical, and withal focal as to the essential needs of the Indians. I am greatly encouraged by what has been accomplished in the introduction of an effort to make the system of Indian education thoroughly applicable to racial conditions and prospects.

Upon the recognized truism that there can be no lasting civilization without schools for all, without a democracy of education, I hope by such provision more than by any other to guarantee the perpetuation and progress of the red race. I see in this molding process the certain development of a body of young men and women

who will become the leaders and transformers of their people as the generations come and go.

ELIMINATION OF INELIGIBLES.—There are not Government schools sufficient for all Indians and in order that these schools might serve those who depend upon them alone for an education, I considered it wise to eliminate children who were not properly entitled to an education at the expense of the Federal Government. So in my declaration of policy I said:

In many of our boarding schools Indian children are being educated at Government expense whose parents are amply able to pay for their education and have public-school facilities at or near their homes. Such children shall not hereafter be enrolled in Government Indian schools supported by gratuity appropriations, except on payment of actual per capita cost and transportation.

The superintendents of several schools are now receiving instructions to carefully examine and limit their enrollment in accordance with the principle involved. There is also a considerable number of Indian children who are citizens of the United States and not wards remaining under partial control of the Government, as this term "wards" has been used and applied by the courts. These children receive the citizenship status of a citizen father, and, moreover, many of them have a large degree of white blood. This class should, as Indians, no longer receive Federal educational assistance. Their elimination will lead to two important results, namely, their place in the schools will be taken by others for whom there are not other school opportunities, and the eventual entrance of the citizen class into the public district schools of the States will be brought about. In certain localities this policy will allow some schools to be closed, thus effecting an economy in use of public funds and doing this without injustice to any real Indian children. I do not intend, however, to carry the general principle so far as to deprive of school facilities children for whom no school but a Government institution is available.

SCHOOLS DISCONTINUED.—It has already been found practicable and wise to close the Sac and Fox boarding school, Oklahoma, where public schools abound in an advanced community, and the Wittenberg boarding school, Wisconsin, where other facilities will be available for all children not belonging to the class of nonwards to whom reference has been made.

GRADUATES OF DEMONSTRATED COMPETENCY.—Another important provision in the declaration of policy aims at educational evidence of competency. This will be best presented, perhaps, by reproducing a portion of my letter dated April 28, 1917, addressed to the superintendents of all the nonreservation boarding schools which are equipped and authorized to conduct full courses of study, including a four-year period of vocational training.

The letter in part follows:

I ask your special attention to the following paragraph of the declaration of policy in the administration of Indian affairs issued on April 17, 1917.

"Indian students, when they are 21 years of age, or over, who complete the full course of instruction in the Government schools, receive diplomas and have demonstrated competency will be so declared."

This declaration is founded upon the right and the desire of all progressive-minded Indians to become full citizens in the land of their nativity and to be classed with other free men who enjoy the privilege of owning and controlling property, who participate in the councils of the community and the larger welfare of the State, and who exercise that personal initiative which is the beginning of high destinies whether of individuals, of nations, or of races.

You are in charge of one of the large and well equipped Government schools for Indian youth. Its commencement exercises will soon close the school year and the members of its graduating class will have reached a very significant period in their lives. The transition from the theory and training of the classroom to the practice and achievements of real life, from school work to world work, applies the acid test to the pure gold of every student's character and attainments.

The Indian boys and girls have been at some natural disadvantage but have enjoyed some unusual opportunities. They have had, and now more than ever have, educational privileges superior to those in many of the schools for white children. They have been provided not only with good academic training but with excellent vocational courses calculated to fit them for successful home-making, for healthful and prudent domestic life, and for the efficient pursuit of agriculture, of many of the mechanical trades and some of the skilled manual arts and crafts.

There must, therefore, be in every Indian school giving the full courses a very considerable number of graduates this year who have improved their opportunities and have acquired such a practical education as will reasonably enable them to enter some remunerative occupation and make their way successfully with those engaged in the pursuits of our modern life. To every such capable young man and woman should be given a certificate of competency or a patent in fee, as authorized by law and the new "Declaration of policy in the administration of Indian affairs," attesting the faith of the United States in their ability and determination to prove worthy of this recognition.

It is not intended to declare every graduating student competent to handle his own affairs, but to select those who are 21 years of age and who by their conduct through the years of instruction have profited by wise discipline and shown that they possess the qualities of scholarship and character that fit them for responsibility and competition. To these graduates you will have the happy privilege on the day you hand them diplomas to give them also this declaration of their independence. It should be to them the Magna Charta of their freedom from the restraints not imposed upon other citizens of our country, and in thus granting it I know you will fully represent me with yourself in the hope that no recipient will ever strive for less than the most honorable and loyal fulfillment of American citizenship. I am sure that you thoroughly appreciate the importance of this emancipating movement and that upon all appropriate occasions you will impress its significance upon your student body as the bright goal of their school training, to the end that all pupils shall not only resolve to complete a full course but that graduation for them will be incomplete unless it earns such a certificate of competency.

The uniform course of study was not introduced until February 1, 1916. Hence, there was not time for all of the schools giving the full courses to cover the required work and prepare students for

graduation by the close of the school year 1917. However, several of these schools in which comprehensive courses had been previously given were able to meet the new requirements. A considerable number of young men and women who thus received diplomas were recommended for certificates of competency and found to be worthy of the same from the standpoint of general character, habits, and educational attainments. Some of these graduates were not 21 years of age and their diplomas will be considered at a later time in determining the question of their competency.

I expect that hereafter each succeeding year will show from the full-course schools a larger number of graduates who will have proved themselves to be reasonably capable of managing their own affairs. I believe that graduation as the gateway to citizenship should become in some real sense a gathering call for pupils, inspiring many more to complete their education, as well as a maxim for the schools arousing them to the fullest efficiency.

INCREASE IN PUBLIC-SCHOOL ENROLLMENT.—For the fiscal year 1916 there was appropriated \$20,000 for payment of tuition of Indian children in State public schools. This amount was insufficient, and by the Indian appropriation act for the year 1917 more money was rendered available for this purpose, not to exceed, however, the sum of \$200,000.

During 1916 contracts were made with 45 public schools (excluding eastern Oklahoma, occupied by the Five Civilized Tribes) for education of 853 Indian pupils, and calling for a maximum expenditure of \$24,984, of which amount about \$14,000 was actually earned and paid to the schools.

During 1917 contracts were made with 194 public schools (exclusive also of eastern Oklahoma) for 2,194 pupils and for the total of \$57,126.

This represents an actual increase of 157 per cent over the number of children provided for in public schools during 1916.

The cooperative arrangement for enrollment of Indian children in public schools has been made in California, Oklahoma, Minnesota, Montana, Nebraska, Nevada, South Dakota, Utah, and Washington. In nearly all school districts in these States attendance of Indian children has been acceptable to the white patrons and these school authorities and devoid of any injurious results so far as my information indicates. If, in due course of time, the States are to assume charge of the Indian and receive him as a citizen entitled to the benefits and subject to the liabilities of their laws, it seems equally for the interests of the States to assist in this manner in his education and training. There seems an evident willingness to do so, provided the Federal Government will assist and share the financial obligations, especially in those districts which have limited

sources of school revenue by reason of nontaxable Indian lands or otherwise.

PUBLIC SCHOOLS IN EASTERN OKLAHOMA.—In aid of the public district schools in the territory of the Five Civilized Tribes, Oklahoma, there was appropriated \$275,000, and all of this money has been applied in accordance with the intent of the law to assist financially 2,285 school districts. In the schools so assisted have been enrolled 18,185 Indian pupils.

In this connection, the following editorial, from the Washington (D. C.) Star, may be of interest.

INDIAN SCHOOLS.

Probably no branch of the Government service contains a more united and faithful body of workers than the Bureau of Indian Affairs. Among the signal and characteristic movements is the drive along the lines of practical and systematic education. The educational idea, probably more than all other things combined, it is held, will effectually solve the Indian problem.

Two things stand out prominently in the policy of the bureau regarding Indian schools: First. To make them producers as nearly self-supporting as possible not only as object lessons to the Indians, but as a simple business proposition, resulting in the lowest per capita cost and the consequent reduction of appropriations necessary for their support. This, it is urged, is rationally and concretely both effective education and such economy as any great private or corporate interest should observe. Therefore, the farm, the garden, the orchard, the dairy and, where the area of the land would justify, the production of live stock has been pushed intensively and, as far as possible in accordance with scientific methods and practice approved by the Department of Agriculture, which, under existing arrangement, supplies all superintendents of Indian schools with bulletins upon the latest dependable research. Statistical data indicate amazing accomplishments along these productive lines.

Second. There has been a clear perception of the need of a well-balanced course of study essentially parallel with the academic work of the public school, but including thorough industrial training in agriculture, with its allied pursuits and the ordinary trades, together with domestic arts and science adequate for practical and healthful housekeeping.

To prepare such a course, having special adaptation to the social and economic status of the Indians as well as to their scattered geographical locations, was no small task.

Experts of the bureau who had charge of this work were quick to see the need of a definitely planned curriculum that would enable the schools, through efficient service, to take the raw material, the Indian boys and girls, from a largely uncivilized state, at a very young age, when they can not speak English, and make them over, as it were, a condition and undertaking which the world elsewhere does not furnish, and after a few years turn them out a finished product, capable of entering the competitive activities of their community or State and becoming independent self-supporters and citizens of average intelligence and progressiveness. In this more, perhaps, than in all other factors, it is admitted, lies the solution of the Indian problem.

This new course of study that has been laid out has now been tried for more than a year and seems to have been so well prepared that but slight revision will be advisable. It has been scrutinized by educators of prominence throughout the country and has elicited from many sources hearty indorsement. It is now followed to the fullest possible extent in every Indian school under the aid and guidance of 21 supervising officials who cover a like number of territorial districts and whose special duties are

to see that the course is understood and complied with and to report any unavoidable conditions that seem to call for modification of its requirements. Its academical features are such as will enable pupils readily to enter the public schools without retarding their progress and are designed to subserve the general policy of the bureau of encouraging the attendance of Indian children in the State schools. There are now upward of 30,000 Indian children in the public schools and under the provisions of law for paying their tuition, equal to the per capita cost for white pupils, and providing the Indian parents pay no taxes, the number is rapidly increasing and objection to such attendance by white patrons is also diminishing.

HEALTH.

The health problems in the Indian Service are concerned with tuberculosis, trachoma, infant welfare, and epidemics of contagious diseases.

TUBERCULOSIS.—The conditions which are met in the solving of the tuberculosis problem are the tendency of many of the Indians to neglect seeking the physician's aid until the appearance of warning symptoms, such as hemoptysis, the disinclination of many of the Indians to accept the white man's methods, failure to continue treatment long enough in many instances to effect a cure, and the neglect in some instances of observing the principles of modified quarantine with respect to young children. Strenuous efforts have been made to improve the sanitary conditions bearing on this question, and throughout the year all health employees have endeavored to improve conditions in the Indian homes, institute measures looking to the separation of open cases from others, especially where there are young children, and the treatment in sanatoria of all cases which may reasonably be expected to benefit from sanatorium treatment. A stay of considerable duration in a sanatorium has been found to be of great educational value and the Indian reacts very well to this form of treatment. The sanatoria are certainly a success, and the demand for enlarging the institutions now in existence and the establishment of further sanatoria far exceeds the supply of available funds. The Indians are realizing more and more the value of the sanatoria and many of them now have waiting lists. This fact indicates the value of the educational campaign which has been waged consistently during the past few years.

TRACHOMA.—The difficulties met with in the campaign against trachoma are the foci of the disease among the older Indians, which results in the constant stream of new cases entering the Indian schools, the disinclination on the part of many of the older Indians to submit to treatment for a long enough time to effect a cure, and the painful nature and long duration of the treatment.

The corps of special physicians have accomplished a great deal not only in the education of the members of the medical fraternity who have recently entered the Indian Service, but in the operation

and placing under treatment of many of these older Indians. The returned students, who have experienced the beneficent results of trachoma treatment, have been a large factor in the dissemination of information concerning this disease among the old Indians.

The pupils in the day schools and the boarding schools all receive compulsory treatment for trachoma, and it is now a common occurrence to receive reports from the eye specialists that the disease in the schools they visit is under control.

EPIDEMICS.—There have been rather numerous epidemics during the last fiscal year of smallpox, diphtheria, rabies, measles, and whooping cough. The handling of these epidemics presents greater difficulties among the Indian population than occurs among white people, owing to the fact that many of the Indians do not understand the need for quarantine. Some of the diseases cause a much higher mortality among Indians than among whites, more especially measles, in the epidemics of which there has followed a high percentage of pneumonia. Smallpox early in the year broke out among the Navajos, of whom there are in the neighborhood of 25,000 in northern Arizona, and before the cases were discovered there had been a rather wide exposure. This was due to the unfortunate shortage of physicians, partly due to the demand of the War Department. However, a medical supervisor was immediately sent to take charge of the situation, and wholesale vaccination was started and detention camps established. Satisfactory progress has been made and it is believed the disease is under control. The Navajos have learned the value of vaccination, but like many white people they are likely to wait until danger is present before protecting themselves. Sanitary preparedness is in order, and Indians are becoming more and more amenable in this respect.

"SAVE THE BABIES."—Continued and vigorous effort has been the watchword in the campaign for better health conditions among children, especially the young infants, among whom the mortality has been so great. Results in this direction have been surprisingly gratifying, and much has been accomplished. At the Indian fairs last fall a "Baby contest" formed a prominent part in the program, and great interest was manifested by the Indian mothers. They were so successful that it is planned to conduct them on even a more elaborate scale this year, and to this end standard score cards have been secured upon which the children contesting will be registered. They will be carefully graded by the physicians, and the cards of the babies having the highest scores will be sent to Washington, where suitable certificates will be issued to the parents.

One of the most important factors bearing on the health problem among the children is the education of the mother in the proper care

of her offspring. To this end emphasis has been laid upon the necessity of bringing every possible case of confinement to the agency hospitals for the lying-in period. This policy has resulted not only in giving the mother requisite instruction in the care of herself and her child but has given to many Indian children a start in life that would have been impossible had their birth been consummated under the old unhygienic environments.

Herewith find my letter to a superintendent of one of the Indian reservations in response to his report on an Indian fair in which the baby show was emphasized:

I have your letter reporting the Indian fair, in which you make particular reference to your baby show, inclosing photographs of the very interesting Indian babies exhibited.

It is gratifying to learn that the baby show was the most attractive feature of your fair and that the Indians were greatly interested, not only in the contest between babies, but especially as you say:

"I believe the physical examination of these babies, which was closely watched by the mothers, was as much an item of education to them as anything that has happened in many a day. * * *. The examinations were far more than a superficial observation of the general appearance of the children. Notes were taken of irregularities and deficiencies. It gave the physician, nurse, and field matron an excellent chance for some very good advice to these mothers in a way they will remember as long as they live."

This is fine and indicates intelligent and commendable activity on the part of yourself, the physician, field matron, and nurse, which I greatly appreciate. However, a baby show is apt to be regarded as a display of babies and not taken as seriously by the Indians and employees as I desire. It is my purpose in our health campaign to utilize the baby show as an object lesson that may be the means of helpfulness in extending our work into every home of the reservation. I am determined to leave no stone unturned to accomplish the best results obtainable, and this requires a vigorous campaign. It is not sufficient to talk about these things at the agency, but it is incumbent upon us all to see that employees properly associated with this work make unceasing effort to improve health conditions not only in saving the baby but quite as much to restore the constitution and improve the health of the adult Indian.

It involves sanitation and ventilation of the homes; cleanliness not only of houses and surroundings but of the person and proper food for the child. It requires the instilling of respect for the physician, the nurse, the field matron, and the hospital, and with it the elimination of the medicine man.

I am particularly anxious that our hospitals shall be used for mothers in childbirth. It is my great desire that every Indian mother not otherwise well provided for shall find a place and proper care at this critical period in her life in a hospital. Every Indian hospital bed not necessarily occupied by those suffering from acute disease or serious injury should be available for mothers in childbirth.

All of these things can be brought about only through organized, aggressive, and continuous activity.

Perhaps the most pressing feature of our campaign is sanitation. The first thing to be done is to see that every Indian home and its immediate surroundings are thoroughly cleaned up and kept in a sanitary condition. This is an absolutely necessary accomplishment. In effecting sanitation, do not assume that conditions are satisfactory because you find a tidy appearance. While there is apt to be such harmony,

it is not necessarily so, either with the Indian or the white man. Many times, when the outward appearance is good, there can be found unsanitary conditions.

Infant children should not be fed the food of an adult, but rather and always the nourishing foods suitable for infants. Too much food is sometimes quite as harmful as too little. The important thing is that an infant or growing child shall always have the proper food for his age. It is essential, too, that the mother shall be well cared for before, at the time of, and following childbirth, at home or in a hospital.

As you know, our health campaign has been vigorously pursued for nearly three years. I have regarded it as the thing about which all other administrative activities should revolve. Education and protection of property are highly important, but everything is secondary to the basic condition which makes for the perpetuation of the race.

Our whole field force has earnestly joined the office in a determined campaign to rebuild the constitution of the Indian as rapidly as possible, reduce tuberculosis, eliminate trachoma, and speedily stop the appalling percentage of deaths among Indian children. For many years it has been truthfully announced that the Indian was a vanishing race. Many conditions conspired to make it so. It was a crime to permit it to exist long after discovery, but it has continued until the world looks upon the Indian as a dying race. Under such conditions it would seem almost indefensible that Congress should appropriate large sums of money for the education and the general administration of their affairs. It is out of harmony with the whole program that we should make the fight now in progress for the advancement of a dying race.

I am indeed proud of the fact, and may I not say that its accomplishment will stand out in history as a mile-stone, yes as a monument, more conspicuous than any other one thing in the history of Indian administration during the last half century, that we have now demonstrated, as ascertained from dependable reports made by the superintendents, physicians, and field matrons at the series of Indian school institutes held this summer, for the first time in 50 years there were in 1915-16 more births than deaths among the Indians of the United States. The Indian is no longer a vanishing race. Our strenuous efforts are certainly worth while with such a reward awaiting us—saving a noble and deserving people. With a continuance of our present campaign there is now every promise that the Indian will permanently survive and become a component part of our civilization standing side by side with the Caucasian.

Together with the other things mentioned in this letter, I wish again to impress most earnestly upon you the tremendous importance of improving sanitary conditions in every Indian home. Let sanitation be our watchword. In our nation-wide Indian health campaign, let us make sanitation the first consideration.

CHOCTAW AND CHEROKEE HEALTH DRIVES.

Some time since it came to my attention that health conditions were especially bad among the Choctaws and Cherokees of Oklahoma, accordingly as soon thereafter as funds could be secured, I arranged for health drives among these two tribes; set aside the necessary funds, organized an experienced and competent force consisting of a special medical supervisor and a woman supervisor, with six field matrons for each, under the immediate direction of Supt. Parker. This work contemplated a campaign of three or four months' house to house canvass, to effect immediate results by way of prevention as well as cure, improving sanitary, health, and home conditions, with special reference to tuberculosis, the segregation of open cases and

advice to Indians concerning appropriate treatment, hygienic, dietetic, medical, or otherwise, the improvement of Indian homes and their outside surroundings, including sanitation and personal hygiene, with emphasis on sanitation. After their initiation I went to Muskogee and held a conference with all of the people engaged in these two drives, finding them deeply interested in their work and their accomplishments gratifying. While there I discovered opportunity to intensify this health work, and among other things addressed a letter to the chief of the Ke-doo-wah Society, consisting of Cherokee Indians, from which the following excerpts are taken:

Shortly after assuming the duties of Commissioner of Indian Affairs it came to my attention that the Indians throughout the United States were fast becoming a dying race and that it was largely the result of tuberculosis and other diseases. I found this condition so universal and serious that I was appalled. It appeared to me as almost beyond belief that a race of people, with such a splendid ancestry and because of their historical grandeur and nobility, should be permitted to diminish and be eliminated as a substantial factor among those who are to live for all time.

It occurred to me that the first obligation of the Government to the Indians is to exert itself to the uttermost to save the race—to perpetuate its life. With this end in view, more than three years ago the Indian Bureau commenced a systematic and widespread campaign to improve home and health conditions among the Indians throughout the country—to give the Indian baby an equal chance with the white child to live and to the Indian father and mother an opportunity to enjoy the fruits of life in a manner equal to that of their white neighbors. During these three years we have made a vigorous effort through physicians, nurses, and field matrons to reestablish their health, with the result that last year, for the first time in more than 50 years, there were more Indians born than died from every cause. This means that the Indian is no longer a dying race, and yet it is a fact that in spots here and there throughout the Indian country health conditions are still so bad that the Indians are dying faster than they are being born.

To remedy this situation, we have recently made a special effort to find funds to pay the expenses of an organized health drive that is now being carried on in your community. If we are to be successful it must come about as the result of cooperation, and leading Indians like yourself should join the officers and others who are making this effort in behalf of your people. It is essentially important that you and others like you who have influence shall lead in this campaign, not only because of the work that you may do, but more especially on account of the influence you will have upon others.

At this time these campaigns are still on, consequently I am not prepared to make a final statement of the results. However, I have assurance that the expenditure and effort have been more than justified. Details must necessarily await another report.

THE MEDICINE MAN.—I have great satisfaction in announcing the fact that the influence of the medicine man is fast being eliminated. He has everywhere been a destructive element. To the extent that he has flourished his tribesmen have been nonprogressive, never reaching their possibilities, suffering for want of the hospital, physician, nurse, and field matron. He has been a constant menace to the progress, prosperity, morals, and health of the Indian race.

The medicine man is no longer dominant, neither is he now a large factor in the life of many tribes, although he is still found here and there in decreasing numbers.

THE SUPPRESSION OF INTOXICANTS.

The fiscal year just brought to a successful close has been one of remarkable changes in so far as the suppression of the traffic in intoxicants among the Indians is concerned.

The increase in prohibition sentiment throughout the country, and especially in those States where Indians reside, has materially aided our work. The addition of these States to the "dry column," and the drastic laws relating to the importation of liquor into them has proved their effective aid.

As evidence of the effect among the Indians of prohibition, the superintendent of the Umatilla School in Oregon has submitted some interesting figures. During the calendar year 1915 the police records of the city of Pendleton show that there were 1,440 arrests, of which number 270 were Indians, or about 19 per cent. During the calendar year 1916 there were only 385 arrests, of which number 69 were Indians. The saloons closed on January 1, 1916, and the number of Indian offenders fell off as above stated.

A posseman shot a bootlegger on the Nez Perce Reservation in Idaho, which raised the interesting question of the authority of his appointment, but the Federal court in granting a writ of habeas corpus ruled favorably to the Government.

Several officers operated in the State of New York during the course of the year in order to bring about an improvement in the liquor situation among the Indians in that State. This has resulted in improving the situation.

As the States near the Omaha and Winnebago Reservations in Nebraska have gone dry, the Indians have found the difficulty in obtaining intoxicants so great that it is having a markedly deterrent effect on them.

By reason of prohibition in Oregon, Idaho, and Washington, the bootlegger and others engaged in the liquor traffic have been forced to seek new fields of operation. Consequently Montana, with its large Indian population, has experienced an increase in the liquor traffic among the Indians. This will entail much heavy work on this service.

The conviction and sentence to the penitentiary of W. J. Creekmore was a distinct victory for the liquor-suppression service in Oklahoma. Creekmore was known as the king bootlegger and is reputed to have made more than \$1,000,000 in this traffic. He was the head of a ring which is said to have practically controlled the liquor business of that State. He was frequently in the clutches

of the law but managed to evade punishment until his recent conviction. Following this conviction he was fined in the amount of \$2,200 with a three years' sentence in the several cases against him. This hard fought and splendid victory, together with that obtained in the cases of other notorious bootleggers in Oklahoma, is a stern warning of the campaign being waged for the protection of the Indians against the liquor menace everywhere and has effectively destroyed the organized illegal traffic in Oklahoma.

An interesting ruling was handed down by the United States District Court for the Eastern District of Oklahoma wherein an Osage Indian who had received a certificate of competency was held to be still a ward of the Government and that it was a Federal offense to furnish him with liquor, thus establishing an additional safeguard.

The distribution of large amounts of money to the Osage Indians from time to time has heretofore brought about a condition resulting in their being debauched and defrauded. The application, however, of the law prohibiting the payment of moneys to Indians who are intoxicated has largely diminished this evil, although it has not been completely eradicated.

The declaration by Congress that Osage County is Indian country for the purpose of the enforcement of liquor laws has proven exceedingly helpful, and during the quarterly payments our enforcement officers have been very active.

The appropriation act for the current fiscal year authorized the payment to the enrolled members of the Choctaw, Chickasaw and Seminole Tribes of an amount of approximately \$9,000,000. This vast sum of money, as well as \$2,000,000 to the Osages, has called for the most strenuous efforts of the officers of the liquor service to prevent the use of liquor and the consequent debauchment of the Indians. Our service was thoroughly mobilized and on guard, while the governor of the State, the Commissioner of Internal Revenue and other officers were enlisted in the campaign for protection. The governor addressed letters to county officials, and their active cooperation solicited for the enforcement of law and order in the earnest effort to prevent payments being made to Indians who were habitual users of intoxicants. The Indian Office liquor suppression service made a thorough canvass of the State, as a result of which it has found necessary to withhold payments in Pushmataha and Choctaw Counties because of conditions prevailing there. In Choctaw County, the county attorney and a prominent business man were apprehended for introducing liquor. These men were prosecuted and convicted, notwithstanding the great pressure brought to bear in their favor due to their prominence in the State. These prosecutions will have a

salutary effect and indicate a disposition to treat all men who violate the liquor laws as equal criminals in the eye of the law.

Reports indicate that the payment was generally a marked success; that many of the Indians deposited their shares in the bank and checked against them for the purchase of the necessities of life and other beneficial purposes.

Illustrative of the activity of this thoroughgoing canvass, the following excerpt from a report will show certain conditions which were remedied:

In my former report covering this situation I make mention of the fact that the district court was in session in McCurtain County and that at the time of my leaving there on that occasion 22 persons had been convicted and sentenced to the penitentiary for various crimes. On arriving at Idabel on this occasion I learned that the district court had adjourned, that during its session of five weeks 34 convictions had been had and 34 persons taken to the penitentiary and as said in my former report this seems to be the healthiest indication I have found in McCurtain County and can only mean that the citizenship has begun to waken up to the condition in that country and are intending to see that the same is bettered.

Another payment has been authorized and there is every reason to believe that the active campaign which has been made for good government and for the elimination of the disastrous effects of liquor on such occasions will be as successfully carried out as previously.

Stringent and active measures are also thrown around similar payments in lesser amount elsewhere throughout the Indian country.

In view of conflicting decisions by the courts as to the meaning of section 2140 of the Revised Statutes, which provides not only for the seizure and forfeiture of liquor but for the boats, teams, wagons, and sleds used in conveying same, Congress cleared up the situation by enacting that:

Automobiles or any other vehicles or conveyances used in introducing or attempting to introduce intoxicants into the Indian country or where the introduction is prohibited by treaty or Federal statutes, whether used by the owner thereof or other person shall be subject to the seizure, libel, and forfeiture provided in section 2140 of the Revised Statutes of the United States.

The enactment of this specific legislation will be an effective bar to the collusion of parties who would endeavor by claiming a mortgage or other lien on the automobiles thus confiscated to defeat the purposes of the Government.

The question whether it is an offense to transport liquor from a point outside to another point beyond a reservation and whether the liquor while in transit across the reservation was subject to seizure and destruction under section 2140, has been and is now before the courts.

This has created an unfortunate condition and may cause considerable trouble to reservation officers. However the Reed amendment

to the post office bill will to some extent remedy it. Congress is now being asked to close up this gap in our otherwise effective liquor laws.

Owing to the advancement to the Chippewa Indians of one-fourth of the amount which would now be coming to the Indians under a pro rata distribution of their permanent fund under the treaty of February 22, 1855, a troublesome condition has been created. There is a large element within this area which has been accustomed to obtain liquor freely, which, coupled with the desire on the part of others to reap large profits from the illegal introduction and sale of liquor, has caused the liquor suppression officers a great deal of trouble, although their work has mainly been very satisfactory.

The difficulties experienced by all who are engaged in the work of suppressing the liquor traffic among Indians have been great and have been carried on with many legal battles. The legality of these operations and the actions of the officers have frequently been called into question into the courts, but in the face of all obstructive measures substantial progress has been recorded. Instances are known where liquors under the titles of "near beers" have been shipped into treaty territory and a market established. Afterwards the percentage of alcohol would be increased until in some instances real beer was going in the place of the "near beer" and under its guise and label. To minimize this, an order was issued prohibiting the introduction of malt liquor, which immediately brought the question into the courts for restraining orders to prohibit our officers from interfering with these shipments. It is gratifying, however, that the action taken in the State courts was to promptly dispose of the case by refusing to grant the restraining orders. Many prosecutions were instituted and are now pending in the Minnesota judicial district.

An interesting case arising out of the enforcement of treaty provisions is now pending before the Supreme Court of the United States wherein the John Gund Brewing Co. seeks to compel the Great Northern Railway Co. to accept a shipment of beer and other fermented malt liquors to persons residing within the treaty territory where purchased for and intended to be used personally and for the private consumption of the consignees. Because of the importance of this question in connection with this work in Minnesota the Government has intervened and the outcome of the case is being awaited with interest.

An important decision has been rendered by the Supreme Court of the United States in the case of denying the authority of Federal courts to suspend sentences, etc. This decision will prove of inestimable value to our service. Many reports have been received from the officers of the liquor service in which attention was invited to cases where a minimum sentence of 60 days in jail and the payment of a fine of \$1,000 was suspended upon the payment of a fine of \$25.

This appears to have proven an incentive for the vendor immediately to reengage in the traffic to recoup his loss. The imposition of penitentiary sentences in a few aggravated cases in each jurisdiction will have a great influence upon the violators of the law and show that the Indian Office is in earnest in waging uncompromising warfare upon all persons who carry intoxicants of any kind to the Indians.

Position or influence should not be a factor in the enforcement of the law against the introduction or sale of intoxicating liquors to Indians or in Indian country. It is an axiomatic and good principle that all men should stand equal before the law. In fact the institutions of our country are in no way better reflected than when this idea is faithfully executed.

More than four years' experience in an effort to minimize the use of liquor among Indians has persuaded me that they advance more rapidly and prosper more certainly when they are sober. It has been my observation that merchants and those who trade with Indians have enjoyed prosperity in proportion as the liquor traffic among them has been suppressed; that crime and disorder have been reduced to a minimum when we have been successful in eliminating the bootlegger; that health conditions have been improved, social standards raised, and betterments generally effected not otherwise obtainable where the sale of liquor prevails.

I sincerely believe that no appropriation of \$150,000 made by Congress will be fraught with more lasting and beneficial results.

FARMING.

FOOD CAMPAIGN.—Following the practice of the present administration, I issued on January 4, 1917, a letter to every superintendent regarding the necessity for early and thorough preparation by all Indians desiring to farm this year. This letter outlined the essential steps to be taken in the selection of seeds and implements, indicated the proper methods and funds respecting the purchase thereof, the need for careful cleaning and testing of seed, the conditions under which the reimbursable plan would apply, the importance of larger gardening operations, etc.

On April 9, 1917, less than a week after the passage of the congressional resolution recognizing a state of war between the United States and Germany, I sent the following telegram to 137 Indian Service superintendents throughout the country:

War situation makes it imperative that every tillable acre of land on Indian reservations be intensively cultivated this season to supply food demands, particularly wheat, beans, potatoes, corn, and meat. Call farmers and leading Indians together immediately for organized, united efforts under your continuous supervision. This is the highest importance and requires aggressive action. There must be no delay in anything necessary to insure results. Wire what may be expected and report progress by letter.

Similar telegrams were sent to the supervisors, inspectors, superintendents of irrigation, and others, urging organization and cooperation. The purpose of this telegram was amplified in a letter to all superintendents dated April 12, 1917, incorporating the President's appeal to the farmers of the country, in which I said in part:

I am much gratified at the prompt and enthusiastic responses to my telegram of April 9, urging increased production of foodstuffs by the Indians.

With the entry of the United States into the world war the importance of an increased food supply can not be overestimated. We must sacrifice every nonessential along other lines for this supreme object. The service farmers should get into the field early and stay late, encouraging and assisting the Indians in every way possible. Enlist the cooperation of the lessees of Indian land and of the white farmers in the vicinity. This appeal is based on both economic and patriotic grounds. See that it is brought home to every employee and Indian on the reservation, through the farmers and other industrial employees. Publish it in the school and agency papers and circulate it by every other means which may occur to you. Appeal to the patriotism of the Indians. Show them how they can serve their country effectively in the present emergency by exerting themselves to the uttermost in the production of foodstuffs. While my telegram mentioned foodstuffs, "particularly wheat, beans, potatoes, corn, and meat," there should be no diminution in the production of forage for your own use.

On April 21, 1917, the following telegram was sent to the superintendents:

What are you doing and what can be done in raising corn, milo, sorghum, potatoes, and other suitable crops in your jurisdiction? It is highly important that everything possible be done in this connection immediately. Wire program showing estimated acreage various crops and total increased acreage over last year.

And on May 12, 1917, the following letter was mailed:

Telegraphic and letter responses to my follow-up telegram of April 21 indicate most commendable and gratifying activities on practically every reservation, as well as at the schools, in the prosecution of our campaign for increased production of foodstuffs. It is now apparent that the acreage of Indian land cultivated or to be cultivated this season will be from 25 to 50 per cent greater than last year, and on some of the reservations 100 per cent greater. I now wish to emphasize certain features of the campaign for your careful attention.

In the enthusiasm for an increased acreage do not overlook the necessity of proper and intensive methods to obtain the maximum yield from each cultivated acre. This will require very aggressive and systematic follow-up work and continuous supervision by the service farmers, that there may be no let-up when the "first big drive" is over.

Increased production is only one feature of the campaign, conservation being the other. The Indian women and girls should play an important part in this phase of the campaign by the production of vegetables and fruits to be eaten fresh, or canned for winter use, and by more careful and economical methods in preparation and disposition of foodstuffs for the table. The field matrons should be very helpful in these respects.

My attention has been called to the value of dried corn as an article of food. The corn ears, either sweet corn or field corn, are pulled when in the roasting-ear stage, scalded slightly, and the grains cut from the cob and dried in the sun. A circular will be issued later giving the best methods of drying and caring for corn. I call it to your attention now so that you may have your farmers and field matrons take up the sub-

ject with the Indians and urge them to increase planting to meet the demand along this line. It is probable that corn can be successfully grown for this purpose in a climate where it will not mature for the ordinary uses. Push this suggestion.

The figures given in the telegraphic replies to my message of April 21 were no doubt largely estimates, but you should now be in position to report with reasonable accuracy the acreage of the different crops planted or to be planted this year. In this connection there is attached a blank form on which to show the acreage devoted to the different crops on the agency and school farms, by the Indians, by lessees, and the increased acreage over last year. Each column should be carefully filled in with as accurate information as it is possible to obtain.

The showing thus far made by the Indians must be still further augmented. On many of the reservations large numbers of Indians will not bring under cultivation nearly all the available land on their own allotments, and by that I mean their home allotments, lands which ought not to be leased but which the Indian could cultivate if he had the will to work and the means to provide himself with the necessary equipment. Here is where your most urgent task lies, and where the most lasting results may be obtained. Thinking men believe the results of the present and projected agricultural activities should be far-reaching; that they will extend beyond the present emergency, and especially is this true in the Indian Service. The immediate aim is of supreme importance but the ultimate result may be and should be very effective in solving the Indian problem of self-support. Spare no effort to get the Indians fully aroused to the great need for continued and increased activity as a patriotic duty. The present campaign has been wonderfully well launched, but with the experience gained much greater things may be reasonably expected for the next year or crop season.

There is attached hereto a form upon which to show the land which will remain uncultivated this year. You should supplement the statistical table with a written report, taking up the figures, item by item, and carefully analyzing them, showing the character of the land; to what crops it is adapted; whether tribal or allotted; whether irrigation is necessary, and if so whether the land is now under ditch with water available; if irrigation is necessary and the land is not now under ditch, the feasibility, cost, and time required to provide irrigation facilities; whether the agricultural land lies in one large body, if tribal, or in different tracts (show the acreage of each); whether tractors can be used to advantage, and if so whether it would be practicable to develop the land on a large scale by leasing.

In short, I want such a description of the land still unused as will enable me to make definite answer to inquiries from individuals, corporations, or governmental sources, as to the location and possibilities of land suitable for their various purposes. Of course, in all the statistics and information herein requested I realize that no actual measurements can be taken; that the ability of the superintendent to estimate accurately the acreage and soil possibilities will determine the real value of this report; and for these reasons I ask that you give sufficient time and attention to the subject to insure that the report will represent your very best judgment. However, to be of most value, the information should be in my hands not later than June 15. When completed both reports should be returned to me with the other information requested above.

It will be seen that a tremendous amount of work was involved along two distinct but related lines; (1) Awakening employees and Indians to a full realization of the emergency with the consequent determination to do their part to meet it, and (2) providing the physical equipment, seed, etc., necessary to handle the largely increased cultivated acreage to follow. The first was accomplished

in part by means of the telegrams and letters mentioned above, through the visits of supervisory officials especially detailed for this work, and the meetings of employees and Indians called pursuant to my instructions, at which the greatest enthusiasm was shown, and the second by the immediate emergency purchase of thousands of dollars' worth of additional implements, seeds, etc., beyond estimates previously made to meet the normal demands of the service. As one example typical of many other reservations, the superintendent at Shoshone had estimated for 15,000 pounds of seed wheat but actually issued to Indians 69,000 pounds, all of which was produced on the school farm.

As a further step in this direction, I detailed several of the most experienced field men to visit a number of the reservations where the need seemed most urgent, to assist in the organization and prosecution of the campaign.

The response was gratifying on the part of both Indians and employees indicating a patriotic realization of the situation and a determination to do everything possible to contribute to the success of the campaign.

Detailed figures received from most of the reservations and schools indicate that the acreage of Indian land cultivated this season is from 25 to 50 per cent greater than ever before, and on some of the reservations 100 per cent greater, showing that the Indian will be a substantial factor in increasing the country's food supply during the present emergency. However, as intimated in my letter of May 12, 1917, the opportunity is at hand in this situation for a great and permanent impetus to Indian progress, which will set the race ahead many years along industrial lines, if the high standard of activity and accomplishment established this year is maintained. This will materially hasten the final solution of the Indian problem, in keeping with the new declaration of policy in Indian affairs, for the obvious reason that the Indians gradually achieve self-support and become independent by means of their increased industrial activity and the better business judgment employed in handling and disposing of their surplus products.

Reports thus far received show that the Indians on 73 reservations are cultivating this season 472,156 acres of land, as compared with 358,796 acres last year, which represents an increase of 113,360 acres or 31.6 per cent. Practically every reservation showed an increase, the highest being 100 per cent.

This result shows hitherto untapped supplies of energy and capacity, indicative of the possibilities of the race and its partial readiness, at least for the responsibilities of modern civilization. These need only to be fully developed by the gradual processes of education and industrial activity, to accomplish the final solution of the

Indian problem. We may now say with certainty, as demonstrated in this campaign, that the Indian is an asset and not a liability.

An incident worthy of mention happened at Lower Brule during the year. An Indian, after starting his crop, was taken ill and had to go to the hospital, when seven of his neighbors voluntarily gathered at his place and put in five acres of oats, besides breaking ten acres of new land, on which they planted corn, entirely without suggestion from the superintendent or anyone else. This is a spirit of initiative and community responsibility, which is an indication of Indian competency to shoulder the duties of citizenship and stand on their own feet as independent members of society.

Evidence of substantial progress was found on the recently established Papago Reservation in Arizona, where an inspector found comfortable homes at remote Papago villages, with adobe walls, glass windows, chimneys, shingle roofs, and floors, about which he states in part as follows:

So far as my information goes, this advance in home building among the Papagos does not proceed from any definite tangible plan of concerted action emanating from the employees, but is rather the mere material expression of the spirit of progress dominating this tribe of Indians, which spirit among them is doubtless greatly stimulated by the good work of practical education that has been done by superintendent and subordinate employees."

LEASING.—Realizing that with our utmost efforts it is beyond the physical capacity of the Indians to bring under cultivation all the surplus land on the different reservations, aggressive steps have been taken with the view of leasing as much of this surplus land as possible, on liberal terms, special regulations having been promulgated for this purpose which will permit of long term leases. Although final arrangements have not yet been made, it is estimated that more than 200,000 acres of additional land have been or will be leased by the next crop season, thus insuring a further addition to the country's food supply by the utilization of land which would otherwise remain uncultivated. Special efforts are being made to lease hitherto unused irrigable land on the large projects in the west, including Crow, Blackfeet, Flathead, Fort Hall, Fort Peck, Gila River, Colorado River and others.

FAIRS.—The spirit of rivalry and competition is a strong incentive to success among the Indians as well as the whites, and the agricultural fair has proved one of the most effective means of stimulating the enthusiasm of the Indians along industrial lines. At these fairs the Indians display their agricultural products, live stock, etc., in competition with each other. Suitable prizes are awarded on the best exhibits. The first fair of this nature was held on the Crow Reservation in 1906, the number being gradually increased each year until in 1916, fifty-seven such fairs were held, most of which

were entirely supported by means of gate receipts, the sale of concessions, advertising in programs, voluntary contributions by the Indians, etc. Many of the fairs are managed entirely by the Indians, who have regular associations organized for the purpose, with Indian officers, which gives them training in business administration and organization, thus contributing to their education and competency along the lines of modern activities.

The next logical step in this direction is participation by the Indians in conveniently located county fairs on the same basis as the whites, their products being shown in competition with those of other exhibitors. This plan is encouraged wherever practicable, and this year the Indians have continued their good record of winning numerous prizes, which increases their sense of civic responsibility and interest in local affairs, tends to make them feel that they are a part of the civilized community, and thereby contributes to their progress and final emancipation from Government control.

Indian exhibits were also shown at State fairs in nearly every State where Indian reservations are located, and likewise with good results many premiums being won by the Indians in open competition, including first prize on wheat in South Dakota, which was awarded to a full-blood Indian of the Lower Brule Reservation.

AGRICULTURAL EXTENSION WORK.—Agricultural extension work under the Smith-Lever Act, in cooperation with the United States Department of Agriculture and the various State colleges, has been conducted during the year with very gratifying results. This work is carried on in three ways: (1) by means of county agents who instruct the farmers in the most approved methods of intensive agriculture; (2) stereopticon lectures, field demonstrations, etc., by Federal and State experts, and (3) the organization of girls and boys into clubs of various kinds along agricultural and related lines. Wherever practicable this work in all its branches is conducted with excellent results in behalf of the Indians and will play a part in bringing about their absorption into the body politic of the Nation.

EXPERIMENTATION.—In keeping with the policy set forth in my last annual report of emphasizing demonstration work on the farms of the Indians themselves, the special activities of this nature during the year have been principally confined to the cooperative experimental and demonstration farm at Sacaton, on the Pima Reservation in Arizona, operated jointly by this service and the Bureau of Plant Industry of the United States Department of Agriculture. This farm was considerably enlarged during the year with the view of increasing its usefulness. Results have been accomplished, the most significant being with Egyptian cotton, which is now produced by both Indians and whites all over that section. The Indians also

earn considerable money each year by picking cotton for white farmers.

This cotton has become a principal crop in the Salt River Valley, about 35,000 acres being grown there this season, of which the Indians near Sacaton had 100 acres, realizing approximately \$10,000 therefrom. A new variety of this cotton has been developed at the Sacaton farm, named "Pima," which yields approximately 1 bale per acre and sells for as much as 75 cents per pound.

Successful experiments have also been made at this farm with Bermuda onions, soy beans, Peruvian alfalfa, pecans, pomegranates, date palms, pistachio nuts, grapes, etc.

Besides the farm at Sacaton preliminary work has been carried on at several other places in cooperation with the experts of the Department of Agriculture, including the culture of dates at Martinez and Palm Springs, Egyptian cotton at Colorado River, Salt River, and Fort Mojave, and Chinese vegetables at San Juan.

The following appeared in the Christian Science Monitor shortly after my return from a tour of the desert countries in Arizona and southern California:

WASHINGTON, D. C.

Cato Sells, Commissioner of Indian Affairs, has returned to Washington from a two months' tour of the deserts in Arizona and Southern California. During his trip Commissioner Sells traveled hundreds of miles in automobiles, and many miles on horseback, frequently climbing mountains on foot and wading rivers. He inspected the watersheds of the Gila River in Arizona and New Mexico for the purpose of locating possible reservoir and dam sites, and traversed the entire Salt River Valley. He closely followed the Colorado River from Needles, Ariz., to Yuma, Cal., inspected the Parker and Yuma Reservation irrigation possibilities, and studied conditions in the Imperial Valley, his definite purpose being to thoroughly familiarize himself with the water conditions and productive possibilities of the desert countries of the Southwest. Among other things accomplished during his trip, the commissioner effected preliminary arrangements for power to be used in pumping and for clearing, leveling and putting into cultivation 50,000 acres in one tract of desert land on the Pima Reservation, southwest of Phoenix.

Commissioner Sells says that with water these desert lands are capable of almost unbelievable production; that Egyptian long-staple cotton is fast becoming a chief crop, making approximately one bale to the acre, and now selling for 70 cents a pound; that alfalfa grows in great quantities, being cut seven or eight times each season, and that milo maize produces abundantly; that there are more cattle and hogs fed in the Salt River, Yuma, and Imperial Valleys than in any other equal territory in the world. The commissioner visited one ranch in the Yuma Valley where 7,000 hogs were being fed.

It is his purpose, within the next 18 months, to develop not only the 50,000 acres on the Pima Reservation, but in like manner thousands of acres on the Parker and Yuma Reservations. With the first-hand information Commissioner Sells obtained on this trip, he is able to rapidly and effectively transform portions of the great deserts of the Southwest into lands suitable for the production of food for the world's immediate necessities.

STOCK RAISING.

For four years we have been stocking the Indian reservations with cattle, horses, and sheep, and assisting the Indians to become acquainted with the proper method of handling these interests.

The number of stock on the various reservations has been increased during the year 1916-17, in addition to the natural increase, by the purchase and distribution in 20 reservations of 610 bulls, 3,127 heifers, 522 cows and calves, 376 mares, and many rams.

More satisfactory results were obtained this year under a new plan of purchase, whereby representatives of the Indian Service visited the ranches where the stock offered could be inspected. A better grade of stock was procured and at a price which represented a saving of \$20,000 on the entire amount.

The improvement of dairy herds maintained at the various schools and agencies along the lines of work conducted by the dairy division of the Bureau of Animal Industry has been successful. Definite instructions were sent to superintendents and others in charge of dairying interests on October 16, 1916, suggestive paragraphs of which follow:

From personal observation and reports received from time to time it is apparent that the dairy herds belonging to the various schools and reservations in the Indian Service are not as a general rule being handled in the best manner, and are not receiving the care and attention necessary to get satisfactory results. I am convinced that there is urgent need of improvement in all phases of the work involved in the production of milk and also in the methods of handling the dairy herds.

In order to determine what should be done to accomplish this, it is necessary that the person in charge of the herd should make a careful study of each animal so as to become familiar with the characteristics of every animal in the herd. This can not be done without keeping a correct record which will show the peculiarities of temperament and susceptibility to surroundings and conditions. A special study should be made of the dairy capacity and the feed consumption of each animal in order that the "star boarders" of the herd which do not produce enough milk to pay for their feed may be eliminated. A periodical culling of the herd to eliminate unworthy members is necessary to bring the dairy herd up to the standard, and I want every employee in charge of such work to install immediately a system of records to provide for carrying on this work intelligently and effectively.

In the management of the dairy herd at your school it is desirable wherever possible to utilize the male calves and the cows which have reached an age when they are no longer profitable for milking purposes for beef where such policy can be followed profitably. In order to do this it is necessary to have a sufficient amount of feed or pasture available to produce this beef at a satisfactory cost. All animals used for that purposes should be run in a separate herd and under no circumstances should they be handled as a part of the dairy herd.

It is our desire to have each school know what its dairy herd is doing in comparison with the dairy herds at other schools in the Indian Service.

Success in handling this industry is entirely dependent upon the type, quality, and development of the animals in the herd, the general conditions under which they are maintained, and the interest of the superintendent and the employee in direct charge of this work.

I am of the opinion that the Holstein-Friesian breed is best suited for the needs of most of the schools in the Indian Service, and that this type of animal will give the most satisfactory results under the conditions prevailing at the various schools and reservations. Therefore, in considering changes in your present herd you should plan to purchase animals of this breed and thus gradually improve the dairy herd until it is composed of animals of only one breed.

You should have a first-class bull to head your herd. It is generally recognized that "the bull is half the herd." This will enable you to rapidly improve the class of stock, retaining only such calves as prove to be superior animals.

All animals should be tuberculin tested at the time of purchase and at least once a year thereafter. These tests will be made upon request to the representative of the Bureau of Animal Industry, in charge of the district in which your reservation is located, who will detail a veterinarian for that purpose.

Every school should have at least one farm paper, with a department in it relating to this class of work, available for the use of all employees, especially those supervising or handling such matters.

Cleanliness is of vital importance and there is no excuse for the buildings and the adjoining inclosures in which the dairy herds are maintained being in a dirty and insanitary condition.

I shall expect every cow to pay her way and yield a reasonable profit on the investment. I do not want you to feel that you should make radical changes immediately to effect this—in fact the records which you are expected to keep will largely determine what action shall be taken.

In general, I shall expect every dairy herd in the Indian Service to be handled on a business basis and the records kept in such manner that the various inspecting officials visiting your school can readily determine whether satisfactory results are being produced.

The dairy division of the Bureau of Animal Industry has a number of slides which are used in giving stereoptican lectures in regard to these matters, and I will endeavor to arrange to have sets of these slides circulated among the various schools of the Indian Service with pamphlets giving a full description of the subjects illustrated by them.

The suppression of contagious diseases prevalent among the live stock of the Indians has been carried on energetically during the past year. Work done in connection with the eradication of dourine has practically eradicated that disease from among the horses in the States of Montana and North and South Dakota. Representatives of the Bureau of Animal Industry have discovered the existence of this disease among the horses of the whites and the Indians in various parts of the Southwest, and efforts to effectually stamp it out are being carried on there in cooperation with the Bureau of Animal Industry. Much credit is due to representatives of that bureau for their cooperation in work along these and other lines.

On some of the reservations there are many worthless wild horses running on the range, which seriously interfere with the live-stock industry. On the Fort Apache Indian Reservation, where the number of this class of animals running on the range is reported to be 5,000 or more, an organized effort is being made to round up and dispose of them, retaining only such as are valuable to the Indians

for breeding or other purposes. Should this plan be successful, it is proposed to adopt it on other reservations in order that the range heretofore grazed by them may be available for stock that has a marketable value.

The tribal herds on practically all of the reservations have been profitable and individual Indians generally have been successful in the management of their live stock. The Indians have shown a remarkable adaptability for stock raising and they are coming to understand that it is desirable to own well-bred stock rather than the inferior animals raised by them in former years. While the tribal herds are high grade, the cattle, horses, and sheep owned by the individual Indians are fast approaching the same standards. There are practically no long-horned cattle on Indian reservations. Pony stallions are being castrated and replaced with Percherons or other equally good breeds. The flocks of sheep that have for years been permitted to inbreed are being rapidly improved by the introduction of the best rams, with the result that already the wool from Indian sheep is a much higher class than heretofore—almost if not quite as high grade as the wool from the sheep owned by white men. Many Indians have demonstrated themselves to be the equal of their white neighbors as stock raisers. Their recent advancement in this respect has been remarkable. Furthermore, it has intensified their interest in doing things since they have come to realize the profits involved in personal effort.

While endeavoring to put the Indian into business for himself, because it means self-support and a corresponding reduction in appropriations, we have at the same time sought to so develop conditions as to increase the carrying capacity of the grazing lands. This we have accomplished largely by developing and increasing the water supply, with the result that the Indian reservations are now capable of supporting many more thousand head of stock than formerly. For the better protection and care of the stock of the Indians and the lessees much fencing has been done and increased efforts made to avoid depredations from wild animals.

Altogether the Indians have been great gainers from this procedure, and the white stockmen have found grazing privileges on Indian reservations much more desirable than ever before.

IRRIGATION.

Commensurate with available appropriations and the steadily rising prices of labor and material the irrigation work has progressed during the year. When it is borne in mind that the estimates for many of the projects were made several years ago and with an increase of anywhere from 25 to over 100 per cent in the cost of labor

and material the difficulty of carrying some of the projects to completion with available funds will be realized.

Early in the spring instructions were issued to field men to stimulate crop production wherever possible; to confine activities to increasing areas under cultivation and to bringing additional lands under ditch at the earliest date, where such could be done without serious detriment to the project as a whole. This met with a hearty response, and in many localities the area actually cultivated increased by as much as 50 per cent.

The Wapato dam across Union Gap on the Yakima River was completed during the year at an aggregate expenditure of something over \$144,000. This dam consists of two dikes and two spillways, the combined length of which is 1,960 feet. When the distributing system is completed it is estimated that this project will irrigate about 120,000 acres, of which over 57,000 acres are now in actual cultivation. The total crop production during the present calendar year from this project is estimated to reach over \$6,000,000.

One of the most interesting and by no means unimportant features of the irrigation work is the development of underground water in the arid southwest for stock-watering purposes. This is done by means of wells and springs, and while each unit in itself is exceedingly small and the development of water for irrigation purposes in most localities out of the question owing to the limited supply, yet these units are of great value, especially to the Navajo Indians. These wells are frequently 25 or 30 miles apart, scattered over a territory 150 miles long (north and south) by 250 miles broad (east and west). With a reservation embracing over 12,000,000 acres, in many parts of which range is available for stock provided water can be found, the Navajo problem is not one of grass but of water for their stock. In many places one of these small wells will supply a range of 40 square miles and for a number of years past every effort has been made to increase the supply of water, especially in those localities where the available range could not be used on account of the lack of water. One of the field men reports that with the additional water developed the Navajos' stock has increased more in the past five years than it did in the preceding 50. That our efforts in their behalf are not unappreciated the following excerpt taken from a field report will show:

Proud and thankful owners are they (the Navajos), to know that "The Great White Father" at Washington has at last come to their rescue, by sending men and machinery with which to develop their water resources.

As early as 1910 Congress directed the construction of a pumping plant on the Colorado River Reservation with a view of ultimately securing an appropriation of water for the irrigation of approximately 150,000 acres of land. The funds actually made available for this

work, however, have been so limited that the capacity of the pumping plant installed will not exceed 5,000 acres. The only logical system for the irrigation of such large areas is by gravity. The valley at this point on the Colorado River is fertile and the climatic conditions favorable. A dam across the Colorado River and the attendant distributing system to supply these lands, would cost several million dollars and Congress has not yet made even an initial appropriation for beginning the construction of a gravity system. These lands are capable of wonderful production and the area should be fully developed.

I regard this as one of the best undeveloped irrigation opportunities remaining in this country and one on which the necessary appropriations by Congress would be entirely justified.

The Indian appropriation act for the fiscal year directs the Secretary of the Interior to furnish in perpetuity water for the irrigation of 631 allotments on the Salt River Reservation, Ariz., and steps have been taken to secure this water from the storage provided by the Roosevelt Dam. Heretofore the Indians of this reservation have attempted to cultivate more land than the available supply of water would irrigate, and this additional supply of assured water will come to them as a great blessing.

A diversion dam across the Truckee River for the purpose of supplying water to land within the Pyramid Lake Reservation, Nev., was completed during the year at a total cost of \$26,296.24. The construction of the distributing system is being pushed as rapidly as possible and when completed will irrigate over 3,000 acres. The Indians of this reservation are very industrious and much time and labor has heretofore been lost annually in the construction of brush dams and headings which were periodically destroyed during every flood. A permanent diversion will stimulate the Indians to greater effort and come to them as a reward for merit shown.

A sharp controversy having arisen in the Uintah Valley, Utah, over the use of water for irrigation purposes by Indians and whites, the matter finally reached that stage where the Indians were getting practically no water. The Department of Justice was requested to institute proceedings and during the early part of the fiscal year the United States District Court for Utah issued a restraining order and appointed a water commissioner to distribute the water pending a hearing and the issuance of a final decree in the case. It is expected that this will result in a substantial acknowledgment of the prior rights of the Indians. During the year the value of the crops raised in the Uintah Basin by both Indians and whites exceeded \$400,000.

On the Crow Reservation, Mont., something over \$1,000,000 has been expended in the construction of various irrigation projects with an aggregate irrigable area of about 73,000 acres, of which over

69,000 acres can be supplied from the systems now constructed. The larger project diverts water from the Big Horn River and will supply slightly over 33,000 acres. On this river, above the Indian heading, will be found quite a valuable power site capable of a maximum development of over 90,000 horsepower. The site is isolated, however, as far as railroad facilities are concerned, being some 68 miles from the nearest available station. Construction at this time with the present prices of labor and material, renders the project somewhat dubious. To assure a maximum development would necessitate a dam 430 feet high and the quantity of material required would be enormous. Logically, therefore, the construction of a railroad to the site of the proposed dam would be a preliminary step to undertaking the project itself. It has been estimated that the cost of the project, including the railroad, would exceed \$20,000,000.

The irrigable area on the Wind River Reservation under our existing systems approximates 80,777 acres, of which 70,594 acres fall within the diminished reservation and 10,183 acres on "the ceded lands." Something over \$800,000 has been expended in irrigation works on this reservation. During the past year the value of the crops grown amounted to \$264,700, of which the Indians raised \$148,270 and the whites \$116,430.

Strenuous efforts are being made, with every reasonable prospect of success, to greatly increase the area of irrigable land for the Pima Indians on the Gila River Indian Reservation by the installation of pumps to develop underground water. Electric power from the Roosevelt Dam is available, at a low rate, for pumping purposes, and it is expected that about 50,000 acres of additional land will be thus irrigated. This will be of great benefit to the Pima Indians who are deserving, and who have been greatly handicapped in the past on account of their uncertain water supply.

A recent personal inspection of the reservations in the southwest has impressed me with the unusual opportunities for development there, especially in the raising of long-staple cotton, for which there is such an urgent demand and for the growing of which these reservations are peculiarly adapted where water for irrigation purposes can be made available.

REIMBURSABLE FUNDS.

The Indians residing on approximately 85 reservations have participated in the use of reimbursable funds available for the purchase of live stock, agricultural equipment and supplies, and for the encouragement of industry and self-support among Indians. It has opened a way to them to obtain the means for active participation in various industrial pursuits. Under the plan in operation, the money is not given to the Indians for expenditure by them; rather, it is expended

through the regular governmental channels in buying the stock and supplies required after competitive proposals are received. Experience has demonstrated this procedure to be preferable to one which would permit the Indians to buy individually in small quantities. The purchases made by the Government have been usually in large quantities, representing the combined needs of a number of Indians, and much lower prices have been obtained. As an indication of what has been accomplished in buying equipment for the Indians at the minimum cost, reports before me show that wagons which the Government bought and sold to the Indians at one of the southwestern reservations, at a cost of \$90 on the reimbursable plan, were selling locally for \$180.

The tribal herds of cattle established from funds of this character in previous fiscal years have proven profitable, and when the time arrives for turning the stock over to the Indians they will then have an excellent means for attaining self-support. The increases from these herds will eventually be utilized in making repayments to the Treasury of the amounts expended in the establishment and maintenance of the various herds, and it may be said that the Government is therefore certain of reimbursement.

Where property has been bought and sold to individuals, they have been required to sign contracts providing for repayment of the amount of money expended in buying the property delivered to them, and it has been found that they, as a rule, have conscientiously endeavored to live up to their agreements and utilize the property bought to the best advantage. There have been cases where the Indians were unable to make payments upon their accounts on the specific dates agreed upon, and in all cases where such failure was found due to causes beyond the control of the debtors, the delinquent Indians were given further time in which to pay the amounts due. The Indians generally appreciate the benefits which may be derived through participation in the use of reimbursable funds.

Altogether, the reimbursable fund has been wonderfully helpful. It has been our purpose to permit the use of these funds only by those who have demonstrated or given evidence of their willingness and ability to make good use of them, character, industry, and desire to do things looking toward self-support being chief elements in selecting the Indians upon whom this opportunity is conferred. Unquestionably many deserving Indians have through this means been given a substantial start who would not otherwise have been able to utilize their allotments to the best advantage.

NATIVE INDUSTRIES.

The Navajo Indians continued to make blankets, but in less quantities than in previous years, primarily because the price of wool was so much better than in previous years, and they found it more profitable to sell the wool in its raw state than to weave it into blankets. Unfortunately the plan of tagging blankets, heretofore inaugurated for the purpose of guaranteeing their genuineness to the public, has not proven as successful as was hoped. Tags were placed upon blankets, for which the Indians received 75 cents or more per pound from the majority of the licensed traders on the various Navajo Reservations, but it developed that those traders, quite largely, sold the blankets bought from the Indians to wholesale dealers in nearby towns, and the wholesale dealers removed the tags, apparently for commercial reasons.

Notwithstanding the existing war conditions, advantage was taken of every opportunity to encourage the Indians engaged in native handicraft work to make more and better articles than heretofore, so that the products of their industry might be worth more to the buying public, and consequently bring them larger returns. From present indications it does not appear that the supply of the various articles made by the Indians is equal to the demand, and hence no steps have been taken to open up new markets.

LACE MAKING.—The Sybil Carter Lace Association of New York City has continued its cooperation with the Government in the advancement of the lace industry among the Indians. I believe that the foundation has been laid at a number of reservations in California, New Mexico, Wisconsin, and Minnesota from which this important industry will later become a wonderful help to the Indian women in the profitable use of all, or a part, of their spare time in a remunerative occupation.

At all places where it has been possible to give instruction in this art the Indian women have manifested much enthusiasm, resulting in better homes and better methods of living through incomes derived from lace making.

ROAD AND BRIDGE WORK.

The construction and maintenance of roads and bridges on the various reservations has proceeded as rapidly as available funds would permit. Excellent progress has been made on the construction of the Mesa-Verde-Gallup highway across the Navajo Reservation, for which an appropriation of \$15,000 to commence the work was made by the last Congress. This work will be continued during the ensuing year under an additional appropriation.

A road is being constructed across the Kiabab Reservation which will form a part of an international automobile highway extending

from Salt Lake City to the Pacific coast. The system of roads on the Shoshone Reservation in Wyoming has been brought nearer to completion by the expenditure of \$25,000 for the purpose. An appropriation of \$10,000 for similar work on the Yuma Reservation, Cal., has been expended toward the completion of a system of roads on that reservation. A fine bridge is being constructed across the Little Colorado River near the town of Winslow, Ariz., in cooperation with the authorities of Navajo County.

MOTION PICTURES.

Numerous applications have been acted upon during the past year from persons desiring to take moving pictures of Indian life on the reservations. The established policy has been followed of granting such applications with the understanding that the pictures so taken will be of present-day scenes only, and that the Indians will not be induced to give "made-up" exhibitions of their old-time customs and dances, such exhibitions having been found to exert an influence against the efforts of the Government to have the Indians adopt methods of living more conducive to their general welfare and industrial advancement. In certain cases, where it is satisfactorily shown that the pictures will be used for educational purposes only, permission has been granted for taking motion pictures of such old-time ceremonies as the "snake dance" of the Moqui Indians, but the usual practice is to prohibit the taking of such pictures where it is intended that they will be used for "commercial" purposes.

INDIAN TRADERS.

The number of traders on Indian reservations operating under license from this bureau is being gradually diminished. Many of them are going out of business voluntarily; others have purchased lots in Government town sites and moved their stores to such locations and are no longer under governmental supervision. As a whole the traders have exhibited willingness to comply with the regulations in respect to trading with the Indians and there have been few cases of complaint.

DEBTS OF INDIANS.

The policy of forbidding assistance to creditors of Indians in the collection of claims incurred subsequent to departmental order of December 17, 1909, has been strictly adhered to. The number of complaints regarding nonpayment of debts by Indians is gradually diminishing, which would seem to indicate that this policy is having the desired effect. The trader who tries to increase the sale of his merchandise by giving the Indian unauthorized credit is evidently beginning to realize that it is not profitable.

EXHIBITION INDIANS.

Very few instances where the employment of Indians for exhibition purposes was desired came before me during the past year. In every case such employment was discouraged, and only those allowed to go who were not needed at home for farming and other industrial pursuits on the ground that participation in such exhibitions is not conducive to the formation of habits of industry and thrift which I am endeavoring to inculcate among the Indians.

ANNUITY AND PER CAPITA PAYMENTS.

Under the new declaration of policy referred to elsewhere in this report, it has been my endeavor to make all the activities of the service contribute to the gradual emancipation of the Indians from Government control, so far as practicable. Perhaps the most important and vital feature of this policy involves the placing of their funds in the hands of competent Indians for expenditure without supervision. The payment of annuities to certain of the Indian tribes is made mandatory by law, and in cases of this kind it had been the custom to make the payment at such times of the year as the money would be of most benefit to the Indians in connection with their industrial activities.

For several years, however, the policy has been to discourage optional cash payments, as the Indians in many cases did not make good use of the money. Under the new policy I have thought it advisable to be more liberal in this respect, even at the risk of some of the money being squandered, in order to give the Indians actual business experience in handling their funds themselves, so that they might "learn to do by doing."

DESTITUTE INDIANS.

The demands for funds for the relief of distress among Indians during the past year has been augmented by the high cost of food supplies. The funds allotted for this work are small in the aggregate, and it is necessary to spread them over the entire jurisdiction, no one territory receiving a large amount. The greatest demand for assistance has naturally come from the Indians in the Northern States, where climatic conditions make it necessary for people to be clothed warmer and fed better than in the South or Southwest.

Under the new declaration of policy I have had in mind the gradual withdrawal of governmental supervision and care of destitute Indians who are living, not on Indian reservations but in white communities. The various white communities are beginning to realize that the Indians living among them are entitled to the same rights and privi-

leges as the whites, including the right to be cared for as indigents, if their condition warrants. Recent court decisions in the State of California have emphasized these rights in the Indians and have made the work much easier for this bureau.

SIoux ALLOTMENT BENEFITS.

The majority of the Indians of the various Sioux Reservations, entitled to allotment benefits provided by the act of March 2, 1889 (25 Stat., 888-894), with the subsequent amendments thereto, have received issues of implements, stock, or the cash value thereof. A very satisfactory standard of implements has been supplied, attested by the fact that no complaint or request for any changes have been made on any reservation. A high grade of stock has been purchased for issue, and by careful supervision the loss in such stock has been reduced to a minimum. Excellent results have been obtained in stock breeding with the animals issued on Sioux benefit applications. Practically all applications now being submitted are made by the younger generation of Sioux Indians, for the most part just out of school, who derive the maximum benefit of the issues made in establishing themselves on their allotments as farmers or stock breeders.

TRIBAL TRUST FUNDS.

Rapid progress has been made in prorating tribal trust funds in order to assist the Indians to embrace the varied opportunities offered them at this time. An important step forward was made in securing the legislation contained in the Indian appropriation bill, approved May 18, 1916 (39 Stat., 123-128), which permits the withdrawal of shares of noncompetent, able-bodied Indians for expenditure under supervision for their benefit. This law makes it possible to establish noncompetents on their allotments and purchase the equipment and supplies necessary to start them toward self-support. Thousands of Indians are being encouraged to greater effort through the benefits afforded by this new law. Under the new policy, much greater liberality is being exercised in prorating the shares of trust funds on deposit in the United States Treasury to the credit of the various tribes, so far as consistent with present legislation on the subject.

INDIVIDUAL INDIAN MONEY.

The problem of handling the moneys belonging to individual Indians so as to yield them the greatest possible advantage consistent with the preservation and development of their self-respect is pressing as vigorously for attention as at any time in the past.

This task, of necessity, must be disposed of slowly because of its great proportions and because it relates to each individual rather than a race or even a tribe.

During the year special effort has been made to induce and assist adult Indians to establish permanent and substantial homes upon land. The results have been gratifying, though there yet remains many who need the stimulating influence of a permanent home to spur them on to higher and more consistent endeavor.

Under amended rules it has been possible to reduce formal applications from Indians, through their several superintendents for individual Indian moneys, from about 27,000 per annum to about 9,000 per annum without any disadvantage whatever to the Indians so far as can be observed.

There has been an increasing demand for individual Indian money from all quarters, due principally to the high cost of living, but it is noted that most of these requests involve the use of minors' funds by parents or guardians, who have exhausted their own funds and now hope to have the use of their children's money. This money, however, is being held in bank at interest to the credit of the Indians until they become of age, or until some very unusual circumstance should arise fully justifying withdrawal of their money. This is not a hard-and-fast rule, but is deviated from only in the interest of the minor whose funds are involved. It is held to be more important that the children's money shall be kept intact for them, so that they shall some day receive its full benefit, rather than permit parents to use this money for ordinary current expenses, though circumstances sometimes arise in which it appears to be necessary that a small part of these funds be so used.

It is believed that the interests of the Indians have been furthered materially by the present method of handling their funds, and that the full operation of the new declaration of policy will soon register a long advance in their interests.

INDIAN EMPLOYMENT.

The policy of improving industrial conditions for Indians and stabilizing the employment offered them has given a marked impetus to Indian employment generally, and on some reservations a compelling desire to get to work leaves none idle excepting the aged or physically unfit. Recently when employment at a good wage was offered to about 100 Indians of different reservations, 7 of the number accepted; the others were employed.

The field of work giving employment to Indians of mechanical ability in the large automobile factories of the Middle West was greatly widened during the year. They are under the supervision of an overseer, usually an Indian, who sees to it that their work is sped up and looks after their welfare sympathetically. The boys agree to refrain from the use of intoxicants, pay their debts, and save a portion of their earnings for a bank account, that they may start in

business in a small way when they have become expert mechanics. A few Indians occupy clerical positions in the factories. Indians of mechanical qualifications are to be placed in tractor factories to learn the construction and handling of tractors, that they may become important wage earners in the agricultural operations of the West.

One nonreservation school alone at the close of the year entered a class of 18 in one of the leading motor factories, bringing its enrolled number there up to 36.

These young men on reaching the factory go into the "student corps," and besides working eight hours a day spend four nights a week on a factory course in mechanical drafting and technical automobile engineering.

Most of these Indian boys have made good. One of them upon completing his factory work had saved \$750 in wages and was placed in charge of a local branch. Another beat all records in assembling a car and was given a western branch where his earnings approximate \$3,000 per year. Others have taken positions as branch managers and skilled laborers at excellent wages. A student from this school is in charge of a monotype on a New York paper.

The Indian factory boys have furnished their full quota for military and naval service. A number of them are petty officers, one of this class receiving \$71 a month on a United States torpedo-boat destroyer.

Boys attending Indian schools of the Southwest, not needed at home to assist their parents during vacation, are provided with out-of-door work in the Arkansas Valley, from Rocky Ford, Colo., to Garden City, Kans., during the summer. Food, shelter, instruction, the gratuities of school life, must be paid for at Rocky Ford, where Indians gain their first practical demonstration of the monetary value of service.

The work is rapidly becoming self-supporting. The earning capacity of the boys has increased in such measure that the majority now pay transportation to and from school, and board while working. Results have abundantly justified the effort put forth in carrying on the work.

The earnings for 1916 by pupils from a group of five southwestern schools were approximately \$23,000.

Superintendents write that they have only a few Indians to recommend for employment off the reservations, as there is abundant work available.

Fifty-six associations of returned students have sent in reports, showing them to be working for better babies, better homes, better farms, and many phases of social service.

The mere enumeration of a few of the activities of the returned students gives but little idea of the importance of the work of Indians

who have gone from the tepee, hogan, or wigwam to Government, or mission schools, and thence to different fields of labor, where their work is merged into that of the citizenry. Throughout the year, the office has enjoyed calls from many returned students, who, to quote their own words, "came to pay their respects," or to express gratitude for the help given by the Government in sending them to school, and giving them "a start." Among students who have visions for civic usefulness and well defined plans for work, may be listed aviators, soldiers and sailors, professional musicians, nurses, some now in France, many boys and girls in industrial, literary, and professional work, and numbers working their way through college. Because of their narrowed environment at home and lack of diversity in occupations, the schools, this year, have placed a larger number of pupils than formerly in families. The vacation work amplifies the school instruction and gives another perspective to life's opportunities.

The number of returned students who are prosperous and independent on their allotments over last year is of important economic significance as showing a year of constructive work upon which to build for competency.

ALLOTMENTS.

Allotment work was continued on the various Sioux reservations during the year under authority of the acts of March 2, 1889 (25 Stat. L., 888), and May 29, 1908 (35 Stat. L., 444-451). The act of 1908, *supra*, authorizes allotments to any living children of the Sioux Tribe of Indians belonging on any of the Great Sioux reservations, and who have not heretofore been allotted, as long as the tribe to which such Indian children belong is possessed of any unallotted tribal or reservation lands.

Allotment work was also continued on the Gila River Reservation, Ariz., under a special allotting agent. Due to the intense heat in that part of the country a cessation of field operations is necessary during the summer months.

Under the act of August 1, 1914 (38 Stat. L., 593), 456 allotments, covering an area of 132,315.72 acres, were made to the Indians of the Fort Peck Reservation, and the schedule of selections is being checked up with a view to its ultimate approval and the issuance of trust patents.

During the year 120 allotments on the public domain were approved to Turtle Mountain Indians under the act of April 21, 1904 (33 Stat. L., 189-194), and cover an area of 15,030.40 acres.

On the Colorado River Reservation, Ariz., additional lands were allotted to Indians having rights thereon, more especially Indians who formerly resided at Fort Mojave.

Allotment work under an item contained in the Indian appropriation act approved March 2, 1917 (Public 369), has been authorized on the Morongo Mission Reservation, Cal., and a special agent was recently detailed to that reservation for the purpose of making allotments. It is expected that allotment work on other mission reservations will be taken up soon.

A large number of reallocations were made on various reservations during the year, notably on the Blackfeet Reservation, under authority found in the acts of October 19, 1888 (25 Stat. L., 611-612), and March 3, 1909 (35 Stat. L., 781-784). Changes are encouraged where the Indians will be benefited, and especially where a better character of land is obtainable.

A list of the reservations, number of allotments approved during the year, and number made in the field but not yet approved will be found in Table 26.

CLASSIFICATION AND APPRAISEMENT OF SURPLUS INDIAN LAND.

Under authority found in the act of June 6, 1912 (37 Stat. L., 125), a large amount of reclassification and appraisement work was undertaken. This reexamination work is done in specific cases upon a formal application by the homestead applicant that an error was made in the original classification or appraisement of the land covered by his entry. These applications have covered mainly surplus Flathead lands.

A commission was recently appointed under the act of February 27, 1917 (Public 358), to examine, classify and appraise as to their surface values the surplus coal lands on the Fort Peck Reservation consisting of approximately 120,000 acres. The commission is now at work in the field and it is estimated that the work will be completed by the 1st of November, 1917.

LAND PURCHASES.

A special agent is still engaged in purchasing land for homeless California Indians, and up to the present time purchases have been consummated covering 8,019.51 acres for approximately 4,100 Indians.

Purchases have also been made for the benefit of numerous bands of homeless nonreservation Indians in Nevada, from appropriations contained in the Indian appropriation act for the fiscal year 1917 (39 Stat., 123-143). Provision has also been made for these Indians through lease and the withdrawal of certain areas, and it is estimated that approximately 500 Indians will be provided with homes.

EXTENSION OF TRUST PERIODS.

The following table shows the tribes whose period of trust has been extended, number of allotments on each reservation, the number so extended, date of expiration of trust, and length of extension:

Tribes.	Allotments.	Allotments extended.	Date trust period expires.	Extended.
				Years.
Modoc, Oklahoma.....	68	56	1916	10
Absentee Shawnee, Oklahoma.....	519	504	1917	10
Citizen Potawatomi, Oklahoma.....	1,588	1,503	1917	10
Cheyenne and Arapaho, Oklahoma.....	3,331	3,164	1917	10
Ottawa, Oklahoma.....	158	87	1917	10
Seneca, Oklahoma.....	435	357	1917	10
Wyandotte, Oklahoma.....	244	118	1917	10
Sac and Fox, Kansas and Nebraska.....	122	118	1917	10
Sac and Fox, Oklahoma.....	548	496	1916	10
Iowa, Oklahoma.....	108	105	1916	10
Oneida, Wisconsin.....	1,524	1,501	1917	1

In addition, the trust period on all Indian homesteads and allotments on the public domain which would otherwise expire during the calendar year 1917 has been extended for one year by an Executive order. Authority for these extensions will be found in the fifth section of the act of February 8, 1887 (24 Stat. L., 388), and the act of June 21, 1906 (34 Stat. L., 326).

OSAGE OIL AND GAS LEASES.

On May 31, 1917, there were sold at public auction at Pawhuska, Okla., leases covering certain Osage lands for oil-mining purposes, aggregating 9,120 acres, for a bonus consideration of \$1,997,600, an average of \$219 per acre. These lands consisted of scattering tracts on the east side of the reservation, which were being drained by reason of development on adjacent property and certain tracts included in gas leases on which oil wells were brought in. Leases covering these tracts are for a period of five years and as long thereafter as oil is found in paying quantities, and provide for a royalty in addition to the bonus consideration of 16½ per cent, except when wells on quarter-section tracts or fractional parts of quarter sections are sufficient to average 100 or more barrels per well per day the royalty on oil produced is 20 per cent.

The Osage Reservation, under which oil and gas is reserved to the tribe until 1931, comprises approximately 1,500,000 acres, of which one block on the east side was leased for oil and gas under a blanket lease authorized by Congress, which expired March 16, 1916. New leases have been made covering about 900,000 acres for gas and about 227,000 for oil. The oil leases, aggregating about 227,000 are included in the 900,000 acres leased for gas.

On June 30, 1917, there were 1,234 dry and abandoned wells on the Osage Reservation, 3,244 producing oil wells, and 333 gas wells. The gross production of oil from July 1, 1916, to June 30, 1917,

amounted to 9,943,919.45 barrels, of which the Osage Tribe received as royalty 1,643,223.68 barrels. The total receipts of the Osage Tribe from oil and gas leases from July 1, 1916, until June 30, 1917, amounted to approximately \$5,000,000.

OIL AND GAS INDUSTRY OUTSIDE THE FIVE CIVILIZED TRIBES AND OSAGE NATION.

Prior to the fiscal year 1912 comparatively little interest was shown in the oil and gas industry outside the Five Civilized Tribes and Osage Nation. Subsequent to that time, however, the industry has shown a steady increase, until at the present time oil fields are in operation not only on the Indian lands in Oklahoma but in the States of Wyoming and Washington as well, and recently on the Pine Ridge Reservation in South Dakota.

The greatest development has been made on the Otoe, Pawnee, Ponca, Kiowa, and Sac and Fox Reservations in Oklahoma, on allotted lands, Shoshone, Wyo., showing the greatest development on tribal lands.

Owing to the steady increase in the price of oil during the fiscal year 1917, it has been a banner year in the leasing of Indian lands for oil and gas mining purposes. The regulations approved September 3, 1912, governing the leasing of restricted allotted Indian lands for mining purposes fix the amount of rentals and royalties, making it obligatory on the lessee to pay the amounts thus specified.

In addition to the rentals and royalties prescribed by the regulations, bonuses are paid directly to the Indian lessors, varying in amount from a few dollars to several thousands of dollars, owing to the geological indications of the presence of oil or gas and the proximity of the land to developed territory.

The following statement shows the approximate number of acres on which leases for oil and gas mining purposes are approved or pending at the various agencies outside of the Five Civilized Tribes and Osage Nation up to and including June 30, 1917:

Agency.	Acreage.	
	Pending.	Approved.
ALLOTTED LANDS.		
Cheyenne and Arapaho.....	4,982.94	20,228.00
Kiowa.....	2,724.62	36,287.00
Otoe.....	8,328.58	62,946.00
Pawnee.....	2,391.35	63,600.00
Ponca.....	6,439.12	1,040.00
Sac and Fox, Okla.....	1,200.00	19,640.00
Shawnee.....	840.00	6,625.00
Shoshone.....	281.05	7,869.00
Spokane.....	363.27	1,380.00
Total.....	27,550.93	219,615.00
TRIBAL LANDS.		
Shoshone.....		24,080.00
Total.....		24,080.00

FEE PATENTS TO INDIANS.

During the fiscal year 2,500 applications for fee patents have been received, of which 297 were denied and 2,203 approved, involving an area of 275,553 acres, valued at approximately \$5,000,000. Of the fee patent applications approved, 576 were full blood Indian allottees and 1,627 mixed bloods. Under the new policy and a broadening of its application to requests for fee patents it is estimated that several thousand fee patents will be issued to competent Indians.

COMPETENCY COMMISSIONS.

During the fiscal year competency commissions have investigated the qualifications of Indian allottees to manage their own affairs on the following Indian reservations: Cheyenne and Arapaho, Crow, Crow Creek, Devils Lake, Kickapoo, Lower Brule, Oneida, Sac and Fox, Seneca, Shawnee, and Sisseton. These commissions are composed of men who are well qualified for the work and who have had long experience in the Indian Service. Numerous fee patents, involving an area of about 50,000 acres of land, have been issued on the recommendation of these commissions.

FIVE CIVILIZED TRIBES.

The area of the Five Civilized Tribes was 19,525,966 acres of unallotted lands, of which 15,794,238 acres have been allotted to enrolled members, 3,130,129 acres not needed for allotment, have been sold as surplus unallotted lands at public auction to the highest bidder for over \$17,000,000, while 139,284 acres were reserved from sale and set aside for town sites, railroad rights of way, churches, courthouses, schools, cemeteries, etc., leaving remaining unsold 458,937 acres in Choctaw Nation, 721 acres in Chickasaw Nation, none in Cherokee Nation, 2,495 acres in the Creek Nation, and 162 acres in Seminole Nation. The Choctaw and Chickasaw tribal unsold lands will be offered for sale at public auction to the highest bidder from October 15 to 31, 1917, to be followed on November 19 by a sale of the remaining unsold Creek tribal lands.

In volume of business transacted by the office of the superintendent for the Five Civilized Tribes, the fiscal year 1917 surpasses all previous years. One million pieces of mail and \$42,000,000 were handled. One hundred and eighty houses and barns were erected at a cost of \$126,492.11; 2,042.25 acres of land were bought for homes costing \$52,437.10; 489,076.62 acres of tribal and allotted lands were sold for \$2,190,293.13; \$1,741,550 were invested for individual Indians in Liberty loan bonds; \$7,500 were invested in other loans and pur-

chases; \$7,429,066.10 were disbursed on account of per capita payments to the Choctaws, Chickasaws, and Seminoles; 2,328 leases for various purposes were approved, and 1,252 canceled; the restriction against alienation of land was removed from 155,428.39 acres and \$4,407,909.62 were collected on account of royalties arising from leases, not to mention 16,000 separate accounts, maintenance payments, thousands of investigations, reports and miscellaneous matters.

The Five Civilized Tribes in Oklahoma now number 101,506 enrolled members, tabulated as to tribes as follows:

Nation.	Restricted class.				Unrestricted class.			
	Full bloods.	Mixed, three-fourths or more.	One-half to three-fourths.	Total.	Less than one-half, including inter-married whites.	Freed-men.	Total.	Grand total.
Chickasaw.....	1,515	258	708	2,481	3,823	4,662	8,485	10,966
Choctaw.....	7,087	709	1,644	9,440	9,699	6,029	15,728	25,168
Mississippi Choctaw.....	1,357	90	30	1,477	183	.....	183	1,660
Cherokee.....	8,703	1,803	2,975	13,481	23,424	4,919	28,343	41,824
Creek.....	6,858	541	1,157	8,556	3,396	6,809	10,205	18,761
Seminole.....	1,254	133	345	1,732	409	986	1,395	3,127
Total.....	26,774	3,534	6,859	37,167	40,934	23,405	64,339	101,506

¹ This indicates the total number of citizens of the restricted class whose names appear on the approved roll. It is estimated that during the year the restrictions have been unconditionally removed from 2,296 persons by the Secretary of the Interior or by death. The approximate number of restricted citizens who have had the restrictions removed from their entire allotments by the Secretary of the Interior and by death is 12,000, leaving 25,167 restricted Indians June 30, 1917.

² This total is 13 less than shown by the report for the fiscal year ended June 30, 1916, it having been found that this number of persons whose names appear on the approved Creek rolls were not entitled to enrollment and notations to that effect have been placed on the roll opposite their names by departmental authority.

PROBATE WORK IN OKLAHOMA.

The volume and importance of the work accomplished during the fiscal year ended June 30, 1917, by the corps of probate attorneys, stationed in that part of Oklahoma comprising the former Five Civilized Tribes, can only be fully appreciated by those who are familiar with conditions obtaining there; and this year, as in the past, these men have demonstrated, in no uncertain manner, the value of their work and have justified, by actual results, the establishment of this arm of the Indian Service.

The establishment of such a force followed as a necessary corollary the allotment of the lands and other property of these Indians among the one hundred and one thousand persons who were enrolled as members and freedmen of the Five Civilized Tribes, for it was inevitable that the personnel of that body of persons should be entirely changed, within a few short years, by the passing of the old and the substitution of a new generation. With this change, which is now being rapidly accomplished, has come a host of per-

sons who have succeeded to the original Indian estates, but who, although owners thereof, are not protected by the safeguards that were thrown about their predecessors in interest.

It therefore became necessary to protect this new class of Indian property holders in an entirely new way and to invoke a new machinery of law and a different forum, to wit, the probate court, as a means of continuing the fostering care of the Government over those members of the Indian race who are still dependent. The United States could appear in this forum only by its attorneys, and hence the establishment of the corps of legal representatives which uniformly and systematically operates, for the benefit of Indian citizens, by the authority of the United States and the cooperation of the State of Oklahoma, in the 40 counties embracing the great domain formerly known as the Indian Territory.

It is impossible to state in a brief space all things actually accomplished by the probate attorneys, but the fact that there are nearly 45,000 probate cases now on the dockets of the county courts of eastern Oklahoma affords some measure of the volume of the work.

The work during the last fiscal year shows the determined efforts of the probate attorneys to put each on a sound basis and to correct abuses generally. In doing so they have, within the past year, participated in numerous criminal actions and civil suits on behalf of Indian citizens, the civil suits involving property valued at upward of \$474,000.

During the year a total of 4,470 citations were issued by the probate attorneys to delinquent guardians, which resulted in the removal or discharge of 1,762 of such guardians and the filing of 2,935 new bonds, amounting to \$3,331,693.

Of the tangible results, most readily appreciable, are the accomplishment of preventing losses in the amount of \$1,514,314 during the last fiscal year that would have befallen Indians but for the efforts of the probate attorneys, which is exceeded, however, by the amounts conserved for them through bank deposits and investments aggregating, for the same period, \$3,424,226.

The scope of the year's work of these attorneys, and the character and quantity thereof, may be comprehended at a glance from the following summary of results:

Cases pending first day of year.....	47, 148
Cases pending last day of year.....	44, 766
Regular cases in which attorney appeared.....	18, 965
Civil actions instituted.....	261
Amount involved in such civil actions.....	\$474, 162
Civil actions finally determined.....	231
Criminal actions instituted.....	15
Criminal actions finally determined.....	25
New bonds filed.....	2, 935

Amount covered by such new bonds.....	\$3,331,693
Guardians removed or discharged.....	1,762
Conservation of funds:	
(a) Bank deposits.....	\$973,123
(b) Investments.....	\$2,451,103
Amounts saved to minors and others.....	\$1,514,314
Inherited land sales.....	1,004
Minor allotment sales.....	471
Citations issued.....	4,470
Quit-claim deeds obtained.....	79
Official letters and reports.....	41,818
Conferences with allottees and others (approximate).....	41,565
Leases drafted by probate attorneys.....	449
Other leases passed upon by probate attorneys.....	887
Appraisements secured from Government appraisers.....	975

SALE OF REMAINING UNALLOTTED CHOCTAW AND CHICKASAW TRIBAL LANDS.

Under the regulations governing the next sale of unallotted Choctaw and Chickasaw tribal lands, including the timber land and the surface of the segregated coal and asphalt land, including townsites established on said surface, a sale of these lands at public auction to the highest bidder will commence at Hugo, Okla., on October 15, and concluding at Ardmore, Okla., on October 31, 1917. The timber lands and surface of the segregated coal and asphalt lands classified as suitable for townsite purposes will be sold on the deferred payment plan as heretofore, but the surface of the segregated coal and asphalt land area classified as agricultural and grazing will be sold for cash in accordance with Section 4 of the act of Congress approved February 19, 1912 (authorizing the sale of such surface), without regard to the appraised value thereof, two years having expired since the lands were first offered for sale from November 16 to December 2, 1914.

The most valuable agricultural lands, consisting of 25,910 acres, to be sold are practically all located in Haskell County, while the timber lands are located in McCurtain, Pushmataha, Le Flore, and Latimer Counties, there being 141,126 acres in McCurtain County, 107,083 acres in Pushmataha County, 119,450 acres in Le Flore, and 51,500 acres in Latimer County yet to be sold. These timber lands averaged at the last sale held from October 4 to 31, 1916, \$3.36 per acre, and the agricultural lands averaged \$9.15 per acre.

Steps will be taken as soon as practicable to sell the remaining unsold Creek tribal lands consisting of a little over 2,000 acres, and Creek town lots in Muskogee and Tulsa, recovered as a result of Creek town-lot suits, and the old Creek capitol building site at Okmulgee, Okla., which occupies a square in the center of that city, for the disposal of which several propositions have been advanced, as the

preservation of the old Creek capitol building which was the Creek council house, as a Creek National Museum, to be purchased by the United States for the Creek Tribe for that purpose, to give Okmulgee County preferential right to purchase the old capitol building site with improvements for a courthouse, at the appraised value (about \$60,000), or to have Congress purchase the site for a post-office building for Federal purposes.

ESTATES OF DECEASED INDIANS.

Not only does the United States follow the Indian with watchful care during his life, but after his death distributes his estate, in accordance with the laws of Congress and the regulations of the Department of the Interior in pursuance of these laws.

In former days, before the present really hopeful spirit of understanding and sympathy existed between the white man and the Indian, it used to be commonly and flippantly remarked that "the only good Indian is a dead Indian." The Indian Office can see no distinction as to goodness between living Indians and those who have passed on; it does note, however, in a very large proportion of the cases in which it undertakes the distribution of the estate of a deceased Indian, that he has during his lifetime undertaken and generously fulfilled heavy responsibilities toward relatives, adopted children, or other dependents, who may or may not be claimants to his estate after his death.

In the determination of heirs to Indian estates, the department occupies the position of a probate court, and operates under regulations as to notice and hearing, etc., very much as would such a court. In the consideration of wills made by Indians, however, the department acts also as a guardian of the Indian and his estate, the law making the approval of the Secretary a condition precedent to the validity of such wills, and providing that such approval (or disapproval) may be given either during the life or after the death of the testator. The circumstances of many individual cases have made this method of procedure appear to be the only adequate one.

The fact that during the past year a considerable number of wills (49, or 28.5 per cent of the entire number acted upon) was disapproved, shows the importance of the discretionary power in this respect vested in the Secretary of the Interior. The total number of wills approved was 123, exclusive of Osage wills, which receive consideration under a law applicable to them alone and for the approval of which no fee is collected.

The total number of estates which were the subject of final determination during the year ending June 30, 1917, was 2,851. On 2,608, or 91.4 per cent of these, a \$15 fee for such determination was collected, the total amount of such fees being \$39,120. Of the 172

wills considered, 123, or 71.5 per cent, received approval and 49, or 28.5 per cent, were disapproved.

NEW SYSTEM OF BOOKKEEPING.

The Indian appropriation act of June 30, 1913 (38 Stat. L., 103), required a new system of bookkeeping to be installed in the Office of Indian Affairs which would afford a ready analysis of expenditures by appropriations and allotments and by units of the service, showing for each class of work, or activity, the expenditures for salaries and wages of employees, etc.

In order to comply with this law a new system of bookkeeping, devised by the Indian Office, was installed throughout the service July 1, 1916. However, the act of May 18, 1916, directed the Bureau of Efficiency to prepare and submit a system to the Secretary of the Interior on or before December 31, 1916. This was done, and the system recommended by the Bureau of Efficiency has been adopted.

The new system is divided into two parts denominated, respectively, "Fund accounting" and "General accounting." It was ordered that the fund accounting feature should be installed by the disbursing officer for each unit of the service July 1, 1917, in accordance with printed instructions. The general accounting feature is to be installed at the various units as soon as practicable after the first of July under the personal direction of representatives of the Bureau of Efficiency and such employees of the Indian Service as may be available for the purpose.

The new system differs materially from the one heretofore in use, being designed to show the actual cost of the various activities by expenditures of money and property, rather than by cash disbursements alone.

FORESTRY.

ORGANIZATION AND ADMINISTRATION.—Efforts to improve the administrative force met with much success during the first half of the year; but during the last two months of the fiscal year the force was weakened by the withdrawal of four technical men to serve in the American military forces.

The Regulations and Instructions for Officers in Charge of Forests on Indian Reservations, approved June 29, 1911, were amended on March 17, 1917, to embody changes found desirable for the more efficient administration of Indian timber. In this connection changes were made in the allotment and tribal timber contract forms, and a new timber contract form introduced for the sale of logs, etc., cut by Indians from their allotments or from tribal lands. Several forest survey report forms were adopted during the year.

New regulations for the more efficient sale of the products of the Menominee Indian mills were approved and put into effect October 1, 1916.

APPRAISAL OF TIMBER RESOURCES.—The work of estimating the timber, classifying the land, and gathering data for a contour map of the Quinaielt Indian Reservation was completed in the summer of 1917. Several townships of the Klamath were covered by strip valuation surveys in accordance with a plan for the gradual examination of the whole timbered area upon the reservation. A general reconnaissance of the forested area of the Crow Indian Reservation indicated a stand of about 30,000,000 feet. Estimates on a comparatively small scale were made on a large number of reservations and allotments upon the public land to meet the requirements of small timber sales and of sales of land bearing timber.

As a basis for the administration of the Red Lake Indian Forest, created by the act of May 18, 1916 (39 Stat. L., 123, 137), an examination was made of the lands south of Lower Red Lake. This examination showed that the greater part of the white and Norway pine was mature or decadent and should be immediately removed. The burning over of more than three-fourths of this area during the very severe drought in May, 1917, made an early timber operation imperative. Accordingly all mature timber on a large part of the area south of Lower Red Lake has been offered for sale.

TIMBER SALES.—Two large sales of timber comprising approximately 430,000,000 feet were made from the Klamath Reservation in June, 1917. Upon the larger unit a price of \$3.57 per thousand feet, board measure, was received for yellow pine, with a provision in the contract for increased prices at successive three-year periods in accordance with future advances in lumber values. In addition to these large sales about 15,000,000 feet were sold from allotments.

Two large sales of timber, comprising about 60,000,000 feet, board measure, were made from the southern portion of the Flathead Reservation in June, 1917. Under one of these sales western yellow pine brought \$3.65 and under the other \$4 per thousand feet. A unit of 57,000,000 feet in the Ronan district has been advertised for sale under sealed bids to be received September 11, 1917.

About 18,000,000 feet of mixed species was sold from the L'Anse Indian Reservation in northern Michigan, and comparatively small sales were made from allotments on the Coeur d'Alene, Leech Lake, and Muckleshoot Reservations.

Under sales previously made extensive timber operations were conducted during the year on the Bad River, Fond du Lac, Jicarilla, Klamath, Lac Courte Oreille, Leech Lake, and Tulalip reservations, and minor operations on the Chehalis, Coeur d'Alene, Flathead, Mackinac, and Muckleshoot. The amount cut on each reservation is shown in the Statistical Appendix accompanying this report.

At the Menominee Indian mill, where 17,000,000 feet of lumber were manufactured under Governmental management, Indians earned

more than \$80,000 in wages during the year. On January 1, 1917, the Menominee log fund, from which all expenditures connected with logging operations at Neopit have been paid, was fully reimbursed for all expenditures therefrom. In addition to the excess funds which were then deposited in the 4 per cent fund, provided for by the act of March 28, 1908 (35 Stat. L., 51), and over 30,000,000 feet of manufactured lumber on hand, the Neopit operation had up to January 1, 1917, increased the assets of the Menominee Indians to the extent of the value of the whole manufacturing plant, inventoried at more than \$1,000,000.

FOREST FIRES.—No serious fire loss was suffered during the summer and autumn of 1916. While human efforts are almost unavailing in the prevention and suppression of forest fires during an unfavorable season, there is no doubt that the efficient lookout and patrol system now inaugurated on the Indian reservations having large timber areas contributes materially to the prevention of large annual fire losses. The timber burned upon the Red Lake and Bad River Reservations during May, 1917, will undoubtedly be cut during the coming winter season.

COURT DECISIONS.

The following cases affecting Indians were decided during the last year:

Williams, Chief, et al. v. City of Chicago et al. (242 U. S., 434).—This was an action brought by eight Pottawatomie Indians, members of the Pokagon band and residents of Michigan, against the city of Chicago and certain corporations now occupying valuable lands within the geographical limits of Illinois, which have been reclaimed from Lake Michigan. The Indians claimed ownership of the lands in question under the treaty of Greenville of August 3, 1795 (7 Stat. L., 49). It was held in this case that the treaty, *supra*, under which the Indians claimed did not convey a fee-simple title to the Indians; that under it no tribe could claim more than the right of continued occupancy; and that when this was abandoned, all legal right or interest which both tribe and its members had in the territory came to an end.

Hill, a minor, et al. v. Reynolds, a minor (242 U. S., 361).—A decision of the Secretary of the Interior adjudicating a contest over certain Choctaw and Chickasaw lands, and awarding a patent under the agreement in the act of June 28, 1898 (30 Stat. L., 505), and the supplemental agreement in the act of July 1, 1902 (32 Stat. L., 641), was upheld by the court in this case.

Dickson v. Luck Land Company (242 U. S., 371).—It was held in this case that the issuance of a fee-simple patent to a mixed-blood Chippewa Indian of the White Earth Indian Reservation, under the

provisions of the act of March 1, 1907 (34 Stat. L., 1015, 1034), providing for the removal of restrictions from allotments held by *adult* mixed-blood Indians, was not decisive of the allottee's age for any purpose other than that of fixing his right to receive the full title freed from all the restrictions upon its disposal which Congress had imposed, and that after the issuance of the fee-simple patent the allottee became subject to and entitled to the benefits of the laws of the State, among which were those laws governing the transfer of real property, fixing the age of majority, and declaring the disability of minors.

Harnage et al. v. Martin et al. (242 U. S., 386).—It was held in this case that a decision of the Secretary of the Interior that one of two contesting claimants to an allotment under section 11 of the Cherokee agreement of July 1, 1902 (32 Stat. L., 716), was the owner of improvements on the land, is conclusive, unless made without evidence to support it or otherwise the result of an error of law, and that of two applicants under section 11 of the Cherokee agreement, *supra*, the owner of the improvements on the tract in question is entitled to the allotment to the exclusion of the applicant having no such ownership in such improvements.

G. E. Gannon, plaintiff in error, v. D. R. Johnson and Wilburn Wolfe (decided by United States Supreme Court Mar. 6, 1917).—It was held in this case that the restrictions imposed by sections 15 and 16 of the supplemental agreement between the United States and the Choctaw and Chickasaw Indians, approved July 1, 1902 (32 Stat. L., 641), were intended by Congress to bind the surplus lands during the restrictive periods, whether in the hands of the original allottee during his lifetime or of his heirs after the decease of the original allottee; and that the restriction was upon the alienation of the lands as such, and not merely personal as to the allottee.

United States v. Lucky S. Waller and Mamie S. Waller (decided by the Supreme Court of the United States on Apr. 9, 1917).—In this case it was held that where conveyances by adult mixed-blood Chippewa Indians of their patented allotments were made after the adoption of the acts of June 21, 1906 (34 Stat. L., 325, 353), and March 1, 1907 (34 Stat. L., 1015, 1034), which removed restrictions from sale or encumbrance, that the United States was without capacity to bring suit on behalf of the Indian grantors to set the sale aside because of fraud of the grantees and the incapacity of the grantors.

United States, plaintiff in error, v. James F. Rowell et al. (decided by the United States Supreme Court Apr. 9, 1917).—It was held in this case that the provisions of the act of June 17, 1910 (36 Stat. L., 533), authorizing and directing the Secretary of the Interior to issue a patent in fee to a quarter section in an Indian school reserve in Comanche County, Okla., to James F. Rowell, who was an adopted

member of the Kiowa, Comanche, and Apache Tribes of Indians of Oklahoma, in lieu of all claims to any allotment of land or money settlement in lieu of an allotment did not give any right which could not be divested by a repealing act, and that the act of December 19, 1910 (36 Stat. L., 887), repealing the act of June 17, 1910, *supra*, was valid.

United States v. Bessie Wildcat et al. (decided by the United States Supreme Court May 21, 1917).—This action was begun by the United States in behalf of the Creek Tribe of Indians against Bessie Wildcat and others, heirs of Barney Thlocco, a full-blood Creek Indian, to obtain cancellation of the allotment certificate and deeds for his allotment of 160 acres. It was held by the court that a decision by the Dawes Commission, where it proceeded in good faith to determine the matter and to act upon information before it, not arbitrarily, but according to its best judgment, that a person was entitled to enrollment under the provisions of section 28 of the Creek agreement of March 1, 1901 (31 Stat. L., 861, 870), upon the approval of the Secretary of the Interior should be finally concluded and the rights of the parties forever settled, subject to such attacks as could successfully be made upon judgments of this character for fraud or mistake. The court stated that the district court rightly ruled that the Government had not offered evidence competent to impeach the validity of the commission's action and thus to invalidate the title subsequently conveyed by the patent to Thlocco with the approval of the Interior Department.

United States v. Joyce (240 Fed., 610) (decided by the Circuit Court of Appeals, Eighth Circuit).—It was held in this case that where an Indian entered public lands as a homestead under the act of July 4, 1884 (23 Stat. L., 76, 96), which provided that the patents issued thereunder should be of the legal effect and declare that the United States does and will hold the land thus patented for the period of 25 years, in trust, etc., the mere absence of the required declaration from the patent does not change the legal effect of the patent, and that the various vendees of the land in question were all charged with notice of the restrictions.

Hopkins et al. v. United States (325 Fed., 95) (decided by the Circuit Court of Appeals, Eighth Circuit).—It was held in this case that the surplus allotment of a three-quarter blood Creek Indian, who was a minor when the act of May 27, 1908 (35 Stat. L., 312), became effective, was subject to the restrictions against alienation and encumbrance prescribed by that act, after she had reached her majority.

LEGISLATION.

The Indian appropriation act approved March 2, 1917, carried appropriations for the expenses of the Indian Service aggregating

approximately \$11,365,000. The important items of legislation contained in the Indian act are as follows:

An appropriation of \$75,000 was made to reimburse Indians for live stock which may be hereafter destroyed on account of being infected with dourine or other contagious diseases and for expenses in connection with the eradication and prevention of such diseases.

Authorizing the Secretary of the Interior to cause to be sold to the highest bidder any tract or part of a tract of land purchased by the United States for day school or other administrative uses, not exceeding 160 acres in any one tract, when said land is no longer needed for the original purpose.

Amending the act of March 11, 1904 (33 Stat., L., p. 65), so that the Secretary of the Interior may now grant temporary permits for rights of way for the conveyance of oil and gas before maps of definite location have been approved by him.

Appropriating \$42,500, reimbursable, for the construction of two bridges over the Little Colorado and Canyon Diablo Rivers, near the Leupp Indian Agency, Ariz.

Amending section 3 of the act of January 12, 1891 (26 Stat., L. 712), so as to authorize the President to extend the trust period for such time as may be advisable on the lands held in trust for the use and benefit of the Mission Bands or villages of Indians in California.

Authorizing the Secretary of the Interior to cause allotments to be made to Indians of the Mission Indian Reservations in California, in areas as provided in section 17 of the act of June 25, 1910 (36 Stat. L., 859), instead of as provided in section 4 of the act of January 12, 1891 (26 Stat. L., 713).

Amending the act of June 17, 1892 (27 Stat. L., 52), so that the proceeds arising from the sale of lands of the Klamath River Indian Reservation, Cal., may now be used for the pro rata improvement of individual Indian allotments, maintenance and education of the Indians and their children, and for the construction of roads, trails, and other improvements for their benefit.

Authorizing the Secretary of the Interior to pay to the enrolled members of the Sac and Fox of the Mississippi Tribe of Indians of the State of Iowa, entitled under existing law to share in the funds of the tribe, or to their heirs, the sum of \$10,334.96, together with interest, from the sum of \$42,893.25 transferred to the credit of those Indians under the provisions of the act of June 10, 1896 (29 Stat. L., 331).

Authorizing the Secretary of the Interior to approve the assessments, together with maps showing right of way and definite location of proposed drainage ditches, made under the laws of the State of Minnesota upon the tribal and allotted lands of the Indian reservations in the State of Minnesota, and to pay the amounts assessed against said tribal and allotted lands, on account of benefits accruing

to said lands by reason of the construction of a drainage ditch or ditches under the State laws. An appropriation of \$60,000, reimbursable, was made for the purpose of carrying out the provisions of this legislation.

Authorizing the use of \$5,000 of the tribal funds of the Chippewa Indians of the State of Minnesota as part of the cost of a bridge to be constructed across the Mississippi River on the Cass Lake Reservation.

Authorizing the Secretary of the Interior to pay from the funds of the Chippewa Indians in Minnesota the amount or amounts due any person whose name or names were erroneously stricken from the rolls and reinstated prior to the passage of the Indian act.

Appropriating \$3,791.17 for payment to certain enrolled members of the Citizen Band of Pottawatomie Indians, Oklahoma, of shares which they failed to receive in the per capita distribution made to the band under the provisions of the act of March 2, 1889 (25 Stat. L., 989).

Providing that all of Osage County, Okla., shall hereafter be deemed to be Indian country within the meaning of the acts of Congress making it unlawful to introduce intoxicating liquors into the Indian country.

Authorizing an appraisement to be made of all lands of Osage County, Okla., owned by Osage Indians as allottees or as heirs of tribal members, and providing that the appraisement so made might be taken as a basis for the adjustment and settlement of any exception or claim made by any such Indian or in his behalf with respect to any assessment made prior to July 1, 1917, and appropriating \$5,000 from the funds of the Osage Tribe to defray the expenses of such appraisement.

Authorizing the use of \$50,000 of the Chickasaw funds for constructing and equipping dormitories at the Murray State School of Agriculture at Tishomingo, Okla., for the accommodation of Chickasaw children.

Authorizing per capita payments of \$100 to the Choctaw and Chickasaw Indians and not to exceed \$200 to the Seminole Indians, Oklahoma.

Authorizing the Secretary of the Interior to use not exceeding \$5,000 from Choctaw and Chickasaw funds for building a road to and improving the grounds of the Choctaw Sanatorium, near Tahleah, Okla.

Authorizing the Secretary of the Interior to use \$10,000 of the Cherokee tribal funds for building a road to the Cherokee Orphan Training School from Tahlequah, Okla.

Providing that hereafter no allotments of land shall be made to members of the Creek Nation.

Authorizing the Secretary of the Interior to make allotments on the Umatilla Reservation.

Appropriating \$1,000 bequeathed to the Carlisle Indian School by the will of Bradford R. Wood, late of Albany, N. Y., to assist needy students from the Carlisle School in extending their education to become trained nurses.

Appropriating \$300,000 for school buildings on the Crow Creek, Pine Ridge, Rosebud, Standing Rock, Yankton, Sisseton, Lower Brule, and Cheyenne River Reservations. Following this appropriation is a provision that it is hereby declared to be the settled policy of the Government to hereafter make no appropriation whatever out of the Treasury of the United States for education of Indian children in any sectarian school.

Ratifying and confirming as of the dates of issuance certain patents to lands in the State of Washington heretofore issued as fee-simple patents under the homestead act of May 20, 1862 (12 Stat. L., 392).

Appropriating \$100,000 for the support and civilization of the Wisconsin Band of Pottawatomie Indians residing in the States of Wisconsin and Michigan.

Authorizing the withdrawal of \$387,000 of the tribal funds of the Menominee Indians in Wisconsin, to be expended in aiding these Indians to fit themselves for or to engage in farming or such other pursuits or avocations as will enable these Indians to become self-supporting. This provision also authorized an apportionment of these funds, together with the \$300,000 appropriated last year, on a per capita basis among all enrolled members of the Menominee Tribe, and a per capita payment of \$50 to each member of the tribe was authorized to be made immediately after the passage of the act.

Appropriating \$5,000 to enable the Secretary of the Interior to make additional surveys and examinations for the purpose of preparing and submitting an estimate for the beginning of construction of a project for the watering of a portion of the conditionally ceded lands of the Wind River Reservation, Wyo.

The article just below, which appeared in the *New York Herald*, emphasizes in an interesting way our disposition to be substantially helpful to the small and heretofore neglected tribes of Indians throughout the country.

FORGOTTEN INDIAN TRIBES AT LAST REMEMBERED.

The Federal Government has long made provisions for the welfare of the "big" Indians—the Apache, the Cheyenne, the Five Civilized Tribes, and others—but only very recently has the paternal hand of Uncle Sam been extended toward the lesser groups of red men, none the less deserving because they have no particular hold on the popular imagination.

Small tribes are now claiming a share of the attention of Cato Sells, Indian Commissioner. The Papago, of Arizona, one of the most industrious of the Indian peoples,

at last have been insured against further encroachments. In Montana Rocky Boy's Band, a branch of the Chippewa, which for 60 years were nothing more than wandering mendicants, have received a permanent home, and Commissioner Sells is enabling them to work out a system for their self-support. Even more recently have steps been taken to establish the status of the Florida Seminoles, a task long neglected because of the peculiar conditions existing in the peninsula.

The story of the Papago is one of the most inspiring in the annals of the original American. The tribe, which now numbers about 6,000, has lived for hundreds of years in what is now southern Arizona, one of the most uninhabitable regions of the United States. They have made a substantial contribution to the agriculture of the world by originating and developing the Papago bean, also known as the tepary bean, a vegetable of no little food value that is almost as hardy as cactus. This bean, through the Department of Agriculture, has been sent to almost every arid region in the world.

So desperate was their fight with nature that the Papago had no time for hostilities against the whites and thus escaped the notoriety that was first a hindrance and later a material help to the more warlike tribes. Living on Government land, with no definite reservation, they were crowded farther and farther into the desert until their last stand was made in a barren tract through which there was not a single permanent running stream. It was while they were being still further pressed that Commissioner Sells took up the cudgel in their behalf.

"There were 6,000 of these people living in a land where a white man would have starved to death in a season," he said in describing his first trip to the Papago country. There was not a stream anywhere, but they were the original irrigationists and had learned to run lateral ditches, sometimes covering 2,000 acres to a single pond, where they impounded the water of infrequent rains and used it for their stock and to cultivate a few acres.

"They fenced these water holes with withes and poles, without the use of nails or any metal. They dug wells in some places, drilling now and then through the solid rock with nothing but stone implements."

When it was first proposed to set aside a tract of land for the Papago there was great opposition in the Southwest, which culminated in a hearing before the Secretary of the Interior. Attorneys for the white men were well fortified with precedents and arguments, but they had never slept in the Papago villages nor ridden over the trackless miles in the Indian country as Cato Sells had done. So facts won, and President Wilson issued an Executive order providing a permanent home for these deserving desert people.

In the meantime, through the aid of the Indian Office, the Papago had dug deeper wells and installed pumps. Tanks are replacing the wasteful water holes, and the breed and value of their live-stock herds are improving. The Government has also established schools which are well attended.

The story of Rocky Boy's Band, now numbering about 350, may be more sordid but it promises to end just as happily. More than 60 years ago a band of Chippewa left Wisconsin to hunt buffalo in Montana, then a very wild country. Years passed and the Chippewa in Minnesota and Wisconsin received land, but this band continued to wander, its hunting grounds becoming more and more restricted, until they became little better than nomads, seeking odd tasks and depending largely on the bounty of the whites.

In time one of their number named Rocky Boy developed qualities of leadership and the Indians became known as Rocky Boy's Band. Congress usually has made small annual appropriations for them, but nothing was done to make them self-supporting and self-respecting until the last three years.

Mr. Sells at last prevailed on Congress to give them three townships in the Fort Assiniboine Military Reserve, and there they are now establishing themselves.

The sad feature of their history is that Rocky Boy, after leading his people through the wilderness for many years, died just before they entered the promised land.

Their new home is a wild country that would appeal but little to white settlers, but they are making rapid progress. From reimbursable funds Commissioner Sells has provided breeding stock, and a Government farmer is directing their efforts at stock raising and agriculture.

The problem of the Florida Seminoles, of whom there are less than 600, is now claiming the personal attention of the commissioner. He is the first Government official to obtain their consent to place their children in school, and a small Government institution with an Indian teacher will be opened at Indian Town, Fla., this year. Many things are now in prospect for the heretofore neglected Seminoles.

Commissioner Sells has recently arranged to send an inspector to investigate and report conditions among the Alabama Indians of Polk County, Tex., and has expressed his intention of aiding these long overlooked but worthy people. The forgotten fellow is for the first time receiving the attention of the Government.

SEMINOLE INDIANS IN FLORIDA.

As a result of the earnest and untiring efforts of friends of the Indians, the Legislature of Florida, on May 9, 1917, created a reservation of approximately 100,000 acres for the Seminoles of this State. The act provided that the trustees of the International Improvement Fund should convey to the board of commissioners of State institutions the title to this land in trust for their perpetual use and benefit. As late as October 8, according to advice from Gov. Catts, this conveyance had not been made; however such action doubtless will be taken in due time.

This provision for the native Americans of Florida probably marks the passing of a crisis with which these Indians have for many years been confronted. Their hunting grounds are now apparently safe from further encroachments and will helpfully serve them until they can be induced to take up agriculture as a permanent means of self-support. During the period from 1895 to 1900 some 23,063 acres of land in southern Florida were purchased for the benefit of these Indians, with money appropriated by Congress, and by Executive order of June 28, 1911, 3,680 acres of public land, adjacent to the Everglades in southern Florida, were withdrawn for their benefit, making a total of 126,743 acres now available for the use of the Seminoles.

Hunting, particularly catching alligators, is the present source of the greater part of the Indians' income. It has lately developed that the hide of an alligator is approximately ten times more valuable after being tanned than when green. This fact has moved me to consider the establishment of a tannery at which the Indians could have hides of all kinds prepared for market. Investigation shows that with the prevailing high prices such an industry would require the expenditure of approximately \$4,500, and in addition to insuring proper prices for hides would be an important factor in bringing

them into that relation with the Government which will hasten their earlier acceptance of civilization.

Schools are always an important element in the transition of the Indians from their native state, and accordingly provision is being made for educational facilities. In the past there has been great difficulty in inducing these Indians to attend any kind of a school. Recently a few of the Seminoles have entered the public schools of Fort Lauderdale and Indiantown. One Seminole boy has attended the Carlisle School.

The Florida Seminoles have been reluctant in accepting assistance from the Government; they have retained a deep-seated suspicion of the white man's civilization, largely because of historical grievances. The prosecution of John Ashley, convicted for killing a Seminole Indian, has modified their attitude, and other recent administrative acts of the Indian Bureau have developed a better feeling among them, so that now there is reason to believe that they are responsive to the friendly disposition of the Indian Office and that much greater progress may hereafter be expected than has heretofore been accomplished.

I am deeply interested in the welfare of the Seminoles and other similarly forgotten small tribes of Indians and shall do everything in my power to better their condition.

ROCKY BOY INDIANS.

As mentioned in my last annual report, a reserve has been set aside by Congress for the Rocky Boy Indians, consisting of several fractional townships in the southern part of the old Assiniboine military reserve, in Montana. In appreciation of this action, most of them have given up their former nomadic habits and settled upon the reservation, where they are endeavoring to achieve self-support. They have built houses for themselves from the timber available on the reservation, and constructed a barn, storehouse, and other buildings, besides cultivating several hundred acres of land during the past year.

As the Indians have not sufficient stock at this time to utilize fully the grazing land on the reservation, a lease has been negotiated with a white stockman for 1,600 head of cattle, at \$5.25 per head per annum, which is the highest price ever paid for grazing land in that part of the country. This will produce a substantial revenue for the Indians each year until their own stock has increased sufficiently to utilize the entire grazing reserve, when the lease will be discontinued.

A census of all Indians claiming to be members of the band has been made, which comprises 657 names, and compiled the complete family history of each group. After careful consideration of the

records in each case, 206 names were eliminated, so that the approved roll now contains 451 Indians. This includes a number of the Rocky Boy Indians tentatively allotted on the Blackfeet Reservation, most of whom will no doubt eventually remove to their own reservation, where they will have much better opportunities for self-support.

The notable change brought about among the Rocky Boy Band since they have been permanently located presents in contrast a demonstration and emphasizes the importance not only of a fixed habitation for Indians but the probability of self-support when given opportunity and encouragement. For years a wandering band, they necessarily relied upon odd jobs and charity for subsistence, frequently a burden upon the white citizens of the localities in Montana where they roamed. The industry displayed and their accomplishments within the last two years present an object lesson and a warning of the conditions invited when Indians are relieved of their lands and no longer have means of support. These Indians are now doing things worth while, showing initiative and purpose not heretofore apparent. It must be remembered, however, that complete support can not be accomplished in a brief period, but they are making progress and the outlook is promising.

Their long-time and faithful friends in Montana have reason to feel that loyalty to the Rocky Boys has been justified.

ALABAMA INDIANS OF TEXAS.

The almost unknown band of Alabama Indians located about 18 miles east of the town of Livingston in southeastern Texas and numbering approximately 206 persons, which has been eking out a bare existence for the past several decades, has been brought to my attention, and I sent a special representative to visit this band and make an investigation of their needs.

These Indians are occupying 1,110 acres of land granted to them by the State of Texas more than a half century ago. The land, originally timbered but now partly cleared, can scarcely be called agricultural, and the crude methods employed by the Indians in attempting to raise crops has deteriorated it until it is now practically unproductive.

It is reported that these Indians need more and better land, training in agricultural pursuits, instruction in domestic science, and some attention to their health condition. My plans for relieving this situation and providing the means whereby this neglected band may be made self-supporting will be embodied in a report to Congress at its next session.

These Indians enjoy the good will of the white citizens residing thereabouts. They have been law-abiding, industrious, and are worthy of more consideration and attention than have heretofore been given them.

COOPERATION OF MISSIONARIES AND OTHERS.

I wish to express earnest appreciation for the cooperation and helpful assistance rendered by the missionaries at large and in the field. While ardent in the propagation of their respective religions or denominations, they have, almost without exception, been generous rather than critical of myself or of those representing religious ideas other than their own. Their accomplishments have been constructive and effective, not only in the advancement of the Indians spiritually, but industrially, morally, and otherwise.

I gratefully acknowledge the unselfish service of philanthropic organizations and individuals who have shown their devotion to and genuine interest in the native American.

CONCLUSION.

The recent material advancement of the Indian has been remarkable and has kept pace with the vigorous policy of giving him help toward self-support leading to final dissolution of the ties of paternalism. In 1911 the Indians cultivated 388,025 acres, and last year 678,529 acres; in 1911 they raised crops valued at \$1,951,000, sold stock valued at \$900,000, realized from native industries, such as basket making, blanket weaving, etc., \$847,556; and last year they raised crops valued at \$5,293,719, sold \$4,583,083 worth of stock, and increased the value of their native wares to \$1,206,826. The Indian wage earners for private individuals in 1911 were 3,204, and last year the number thus engaged increased to 6,902, while the value of all live stock owned by the Indians has risen from \$17,971,209, in 1911, to \$28,824,439 last year.

The Indian is discovering himself. He is coming to a realization of his own possibilities; putting the past behind him and looking to the future; beginning to understand and appreciate the accomplishments resulting from industry; to see the profit in individual effort and comprehend the ultimate difference between a cultivated and uncultivated field; the fact that it requires no more labor or expense to raise a well bred, profitable animal than it does to produce a long-horn steer, an inbred sheep, or an old-time Indian pony.

Vital statistics for the same period are not available, but the strenuous efforts being made for a betterment of the purely human side of the Indians is illustrated in the fact that 42,110 families, or at

least 200,000 Indians, have forsaken the teepee and live in houses built largely in a sanitary manner.

Evidences of material and humanitarian advancement are everywhere apparent. Industrially and socially the Indians are making unparalleled strides toward self-support and civilization. I have discovered that with sympathetic cooperation and intelligent encouragement their response is almost universal.

I have been exceedingly gratified with the very general approval given our new declaration of policy by the Indians and white citizens of the country. There is every indication that it will speedily bring about a revolution in the administration of Indian affairs, greatly benefitting the Indians, with a corresponding reduction in appropriations.

The Indian problem can not be solved in a day, it must be brought about in a deeply serious, in all respects courageous, and continuously sympathetic manner, but the time is approaching when governmental care and supervision will, generally speaking, become unnecessary. However, every true friend of the Indian should guard against precipitate and ill-advised action.

All this has been made possible by your sincere cooperation and the loyal confidence and support of those engaged with me in this work.

Very respectfully,

CATO SELLS,
Commissioner.

THE SECRETARY OF THE INTERIOR.

STATISTICAL TABLES.¹

TABLE 1.—*Comparative statement of work and force in Office of Indian Affairs since 1899.*

Year.	Work.		Employees.	
	Communica- tions received.	Increase (+) or decrease (-) over preced- ing year.	Total number em- ployed in Indian Office.	Increase (+) or decrease (-) over preced- ing year.
		<i>Per cent.</i>		<i>Per cent.</i>
1899.....	59,707	.....	101	.....
1900.....	62,601	+ 4.84	115	+13.86
1901.....	67,376	+ 7.63	119	+ 3.48
1902.....	79,237	+17.60	132	+10.92
1903.....	79,115	+ .22	131	- .75
1904.....	86,588	+ 9.03	142	+ 8.39
1905.....	98,322	+13.55	149	+ 4.93
1906.....	106,533	+ 8.35	145	- 2.68
1907.....	117,556	+10.34	160	+10.34
1908.....	152,965	+30.14	179	+11.87
1909.....	176,765	+15.53	189	+ 5.58
1910.....	194,241	+ 9.88	203	+ 7.40
1911.....	197,637	+ 1.74	227	+11.82
1912.....	222,187	+12.37	224	- 1.32
1913.....	275,452	+23.97	237	+ 5.80
1914.....	280,744	+ 1.92	245	+ 3.37
1915.....	298,240	+ 6.23	260	+ 6.12
1916.....	281,165	- 4.70	260	.....
1917.....	281,618	- .91	262	+ .77

	<i>Per cent.</i>
Increase in work, 1917, over 1899.....	371.67
Increase in force, 1917, over 1899.....	159.41

TABLE 2.—*Indian population of the United States, exclusive of Alaska, June 30, 1917.*

[Figures compiled from reports of Indian School superintendents, supplemented by information from 1910 census for localities in which no Indian Office representative is located.]

Grand total.....	335,998
Five Civilized Tribes, including freedmen and intermarried whites.....	101,506
By blood.....	75,519
By intermarriage.....	2,582
Freedmen.....	23,405
Exclusive of Five Civilized Tribes.....	234,492

INDIAN POPULATION BY STATES AND TERRITORIES.

Alabama.....	909	Illinois.....	188
Arizona.....	44,617	Indiana.....	279
Arkansas.....	460	Iowa.....	360
California.....	15,362	Kansas.....	1,421
Colorado.....	898	Kentucky.....	234
Connecticut.....	152	Louisiana.....	780
Delaware.....	5	Maine.....	892
District of Columbia.....	68	Maryland.....	55
Florida.....	586	Massachusetts.....	688
Georgia.....	95	Michigan.....	7,514
Idaho.....	4,168	Minnesota.....	11,777

¹ Exclusive of Five Civilized Tribes in Oklahoma and scattered Indians under Government jurisdiction, except where indicated.

TABLE 2.—*Indian population of the United States, exclusive of Alaska, June 30, 1917—Continued.*

Mississippi.....	1,253	Oregon.....	6,612
Missouri.....	313	Rhode Island.....	284
Montana.....	11,525	South Carolina.....	331
Nebraska.....	3,955	South Dakota.....	21,246
Nevada.....	7,944	Tennessee.....	216
New Hampshire.....	34	Texas.....	702
New Jersey.....	168	Utah.....	2,854
New Mexico.....	20,853	Vermont.....	26
New York.....	6,272	Virginia.....	539
North Carolina.....	8,118	Washington.....	11,181
North Dakota.....	8,903	West Virginia.....	36
Ohio.....	127	Wisconsin.....	10,216
Oklahoma.....	119,108	Wyoming.....	1,674

States, superintendencies, and tribes.	Total population.	Male.	Female.	Minors.	Adults.	Full blood.	Mixed blood.	
							One-half or more.	Less than half.
Total population ¹	335,998	106,114	108,672	95,869	115,917	171,688	47,728	68,878
Alabama: Not under agent.....	² 909							
Arizona.....	44,617	22,115	22,502	20,601	24,016	44,251	281	86
Camp Verde School—Mohave-Apache.....	439	225	214	183	256	422	17	
Colorado River Agency—Mohave-Chemehuevi.....	1,207	671	536	474	733	1,128	18	61
Fort Apache School—White Mountain Apache.....	2,009	1,331	1,278	1,251	1,358	2,501	108	
Havasupai School—Havasupai.....	173	90	88	48	125	173		
Kaibab Agency—Kaibab—Paiute.....	95	55	40	40	55	95		
Leupp School—Navaho.....	1,536	750	786	893	643	1,536		
Moqui School.....	4,200	2,171	2,029	2,009	2,191	4,200		
Moqui (Hopi).....	2,260	1,186	1,074	1,059	1,201	2,260		
Navaho.....	1,940	985	955	950	990	1,940		
Navajo School—Navaho ³	12,080	5,830	6,250	7,068	5,012	11,991	88	1
Pima School ⁴	6,253	3,164	3,089	2,830	3,423	6,243	8	2
Maricopa (Gila River).....	269	130	139	127	143	269		
Pima (Gila River).....	3,984	2,084	1,950	1,703	2,281	3,974	8	2
Gila Bend Reservation, Papago.....	2,000	1,000	1,000	1,000	1,000	2,000		
Salt River School.....	1,232	645	587	567	665	1,230	2	
Maricopa.....	82	45	37	31	51	82		
Mohave—Apache.....	237	127	110	95	143	235	2	
Pima.....	913	473	440	441	472	913		
San Carlos School.....	2,659	1,384	1,275	1,195	1,464	2,630	20	9
Apache.....	2,585	1,347	1,238	1,162	1,423	2,556	20	9
Mohave.....	74	37	37	33	41	74		
San Xavier School—Papago.....	5,112	2,556	2,556	1,000	4,112	5,089	11	12
Truxton Canon School—Walapai.....	457	233	224	182	275	448	9	
Western Navajo School.....	6,565	3,010	3,555	2,861	3,704	6,565		
Moqui (Hopi).....	288	148	140	161	127	288		
Navaho.....	6,087	2,782	3,305	2,620	3,467	6,087		
Paiute.....	190	80	110	80	110	190		
Arkansas: Not under agent.....	⁵ 460							

¹ Includes 23,405 freedmen and 2,582 intermarried whites.² Correct as reported by superintendents.³ Includes Indians in New Mexico under this school.⁴ 1916 report.⁵ 1910 census.

TABLE 2.—Indian population of the United States, exclusive of Alaska, June 30, 1917—Continued.

States, superintendences, and tribes.	Total population.	Male.	Female.	Minors.	Adults.	Full blood.	Mixed blood.	
							One-half or more.	Less than half.
California	15,362	7,786	7,576	5,783	9,579	9,884	3,981	1,547
Bishop School—Paiute, Shoshoni, and Mosche.....	1,600	773	827	562	1,038	1,305	187	108
Campo School.....	233	119	114	83	150	207	19	7
Mission Indians at Campo.....	140	79	61	49	91	128	6	6
Cuyapalpe.....	8	4	4	1	8	8	1	1
Leguna.....	7	3	4	1	6	6	1	1
La Posta.....	6	2	4	2	4	5	1	1
Manzanita.....	72	31	41	31	41	60	11	1
Digger Agency—Digger.....	299	150	149	97	202	47	231	21
Fort Bidwell School.....	756	364	392	264	492	726	21	9
Digger.....	14	7	7	2	12	8	2	9
Paiute.....	209	124	85	89	120	198	11	8
Pit River.....	533	233	300	173	360	525	8	8
Fort Yuma School—Yuma.....	833	441	392	335	498	799	31	3
Greenville School—Digger, Washo, Concow, and Ukl.....	629	328	301	259	370	317	154	158
Hoop Valley School.....	1,299	630	669	541	758	736	445	118
Hupa.....	464	230	234	198	266	198	144	22
Klamath.....	575	289	286	237	338	297	209	69
Lower Klamath.....	260	111	149	106	154	141	92	27
Malhi School.....	629	351	278	226	403	555	33	41
Mission Indians at Augustine.....	19	11	8	5	14	19	.....	.....
Cabazon.....	29	17	12	8	21	29	.....	.....
Martinez.....	125	76	49	37	88	123	1	1
Mission Creek.....	14	8	6	5	9	14	.....	.....
Marongo.....	249	137	112	105	144	177	32	40
Palm Springs.....	50	27	23	14	36	50	.....	.....
San Manuel.....	56	28	28	17	39	56	.....	.....
Torres.....	87	47	40	35	52	87	.....	.....
Pala School.....	1,023	521	502	376	647	896	125	2
Mission Indians at Pala.....	203	98	105	83	120	155	46	2
Capitan Grande.....	140	75	65	59	81	123	17	.....
La Jolla.....	235	126	109	85	150	234	1	.....
Pauma.....	57	25	32	23	34	56	1	.....
Pechanga.....	196	93	103	61	145	196	.....	.....
Rincon.....	143	78	65	51	92	91	52	.....
San Pasqual.....	4	1	3	2	2	1	3	.....
Syquan.....	45	25	20	22	23	40	5	.....
Roseburg (Oreg.) School—Scattered Wichumni, Kawi, Pet River, and others in northern California.	5,000	2,500	2,500	1,800	3,200	2,500	1,875	1,625
Round Valley School—Concow, Ukl, and others.....	1,700	856	844	713	987	615	645	440
Soboba School.....	921	521	400	328	593	753	153	15
Mission Indians at Soboba.....	132	73	59	34	98	117	15	.....
Cahuilla.....	131	73	58	43	88	124	7	.....
Inaja.....	35	18	17	11	24	35	.....	.....
Los Coyotes.....	117	70	47	48	69	117	.....	.....
Mesa Grande.....	200	115	85	78	122	97	89	14
Santa Rosa.....	62	38	24	8	54	62	.....	.....
Santa Ynez.....	70	38	32	29	41	70	.....	.....
Volcan.....	174	96	78	77	97	131	42	1
Tule River School.....	440	232	208	199	241	428	12	.....
Tule River.....	151	91	60	.....	.....	.....	.....	.....
Auberry.....	152	71	81	199	241	428	12	.....
Burrough.....	137	70	67	.....	.....	.....	.....	.....

1 Estimated.

TABLE 2.—*Indian population of the United States, exclusive of Alaska, June 30, 1917—Continued.*

States, superintendencies, and tribes.	Total population.	Male.	Female.	Minors.	Adults.	Full blood.	Mixed blood.	
							One-half or more.	Less than half.
Colorado.....	898	466	432	453	445	881	9	8
Southern Ute School—Capote and Moeche Ute.....	372	181	191	166	206	355	9	8
Ute Mountain School—Capote and Moeche Ute.....	526	265	261	267	259	526		
Connecticut: Not under agent.....	¹ 152							
Delaware: Not under agent.....	¹ 5							
District of Columbia: Not under agent.....	¹ 68							
Florida: Seminole.....	586	337	249	256	331	570	8	13
Georgia: Not under agent.....	¹ 95							
Idaho.....	4,168	2,068	2,100	1,599	2,569	2,300	820	248
Coeur d'Alene School.....	826	411	415	327	499	633	111	82
Coeur d'Alene.....	609	304	305	250	359	430	97	83
Kalispel.....	89	49	40	31	58	59		
Kootenai.....	128	58	70	46	82	114	14	
Fort Hall School.....	1,769	892	877	651	1,118	1,505	210	54
Bannock.....	354	193	161					
Shoshoni.....	1,365	677	688	630	1,000	1,455	210	54
Skull Valley.....	50	22	28	22	28	80		
Fort Lapwai School—Nez Percé.....	1,573	765	808	621	952	1,163	180	212
Illinois: Not under agent.....	¹ 188							
Indiana: Not under agent—Miami and others.....	¹ 279							
Iowa: Sac and Fox School—Sac and Fox.....	360	189	171	158	202	360		
Kansas.....	1,421	730	671	768	653	733	338	330
Kickapoo School.....	640	332	308	336	304	211	204	225
Iowa.....	317	160	157	162	155	13	79	226
Kickapoo.....	224	125	99	126	98	157	37	
Sac and Fox.....	99	47	52	48	51	11	88	
Potawatomi Agency—Prairie Band of Potawatomi.....	781	418	363	432	349	632	134	126
Kentucky: Not under agent.....	¹ 234							
Louisiana: Not under agent.....	¹ 730							
Maine: Not under agent.....	¹ 892							
Maryland: Not under agent.....	¹ 55							
Massachusetts: Not under agent.....	¹ 688							
Michigan.....	7,514	690	657	618	729	209	821	617
Bay Mills Agency—Chippewa.....	250	125	125	102	148	9	121	120
Mackinac Agency—L'Anse, Vieux Desert, and Ontonagon Bands of Chippewa.....	1,097	565	532	516	581	300	400	497
Not under agent—Scattered Chippewa, Ottawa, Potawatomi, and others.....	6,167							
Minnesota.....	11,777	5,886	5,891	5,755	6,022	3,198	4,285	2,803
Fond du Lac School—Chippewa.....	1,056	549	507	530	526	85	551	430
Grand Portage School—Chippewa.....	321	138	183	157	184	8	207	111
Leech Lake School.....	1,770	897	873	742	1,028	992	708	70
Cass and Winibigoshish.....	471	223	248	211	260	307	156	8
Leech Lake.....	805	407	398	347	458	456	383	17
White Oak Point (Minn.) Chippewa.....	694	367	327	184	310	229	220	45

¹ 1910 census.² 1915 report.

TABLE 2.—*Indian population of the United States, exclusive of Alaska, June 30, 1917—Continued.*

States, superintendencies, and tribes.	Total population.	Male.	Female.	Minors.	Adults.	Full blood.	Mixed blood.	
							One-half or more.	Less than half.
Minnesota—Continued.								
Nett Lake School—Chippewa (Bols Fort).....	607	279	328	266	341	888	162	87
Pipestone (Birch Cooley) Mdewakanton and Wapaguita, Sioux and Sisseton, and Wahpeton	160	75	85	76	84	60	86	14
Red Lake School—Red Lake and Pembina Chippewa.....	1,492	745	747	747	745	(1)	(1)	(1)
White Earth School.....	6,371	3,203	3,168	3,267	3,114	1,665	2,576	2,130
White Earth (Miss.) Chippewa.....	2,459	1,250	1,209	3,267	3,114	1,665	2,576	2,130
Mille Lac (removal).....	1,188	575	613					
Otter Tail Pillager.....	830	421	409					
Gull Lake (Miss.).....	439	219	220					
Mille Lac (nonremoval).....	286	134	152					
Pembina—Pillager.....	423	232	191					
Leech Lake Pillager.....	277	130	147					
White Oak Point (removal).....	290	138	152					
Fond du Lac (removal).....	117	69	48					
Cass and Winbigoshish.....	62	35	27					
Mississippi: Not under agent.....	¹ 1,253							
Missouri: Not under agent.....	¹ 313							
Montana.....	11,525	5,835	5,690	5,342	6,183	6,393	3,007	2,125
Blackfeet School—Blackfeet.....	2,752	1,415	1,337	1,513	1,239	1,223	1,155	374
Crow Agency—Crow.....	1,710	856	854	733	977	1,246	268	206
Flathead School—Confederated Flathead.....	2,410	1,222	1,188	1,063	1,357	640	746	1,024
Fort Belknap School.....	1,206	628	578	507	699	861	248	97
Assiniboin.....	639	331	308	245	394	469	100	70
Grosvonts.....	567	297	270	262	305	392	148	27
Fort Peck School—Fort Peck Sioux.....	1,986	1,008	978	962	1,084	1,074	529	388
Tongue River School—Northern Cheyenne.....	1,461	706	755	584	877	1,349	71	41
Nebraska.....	3,955	1,998	1,957	1,979	1,976	2,534	678	743
Omaha School—Omaha.....	1,318	684	634	682	636	1,010	124	184
Santee School.....	1,532	742	790	815	717	611	451	470
Ponca.....	338	153	185	214	124	94	138	106
Santee.....	1,194	589	605	601	593	517	313	364
Winnebago School—Winnebago.....	1,105	572	533	482	623	913	103	89
Nevada.....	7,944	3,943	4,001	2,719	5,225	7,225	519	200
Fallon School.....	429	214	215	127	302	408	21	.....
Palute at Fallon.....	314	161	153	87	227	305	9	.....
Lovelocks.....	115	58	62	40	75	103	12	.....
Fort McDermitt School—Palute.....	350	174	176	141	209	336	14	.....
Mojave River School—Palute.....	120	57	63	43	77	116	4	.....
Nevada School—Palute.....	614	279	335	211	403	610	4	.....
Walker River School.....	706	351	355	206	500	630	76	.....
Palute.....	548	274	274	206	500	630	76	.....
Palute (Mason Valley).....	158	77	81					
Western Shoshone School.....	625	338	287	291	334	625	.....	.....
Hopi.....	1	.....	1	.....	1	1	.....	.....
Palute.....	285	161	124	141	144	285	.....	.....
Shoshoni.....	339	177	162	150	189	339	.....	.....

¹ Unknown.

² 1910 census.

³ 1916 report.

TABLE 2.—Indian population of the United States, exclusive of Alaska, June 30, 1917—Continued.

States, superintendencies, and tribes.	Total population.	Male.	Female.	Minors.	Adults.	Full blood.	Mixed blood.	
							One-half or more.	Less than half.
Nevada—Continued.								
Reno, special agent.....	5,100	2,530	2,570	1,700	3,400	4,500	400	200
Digger (scattered California tribes)	2,100	1,030	1,070	1,700	3,400	4,500	400	200
Palute.....	1,400	700	700					
Shoshoni.....	1,000	500	500					
Washo.....	600	300	300					
New Hampshire: Not under agent.....	134							
New Jersey: Not under agent.....	168							
New Mexico.....	20,853	10,445	10,408	10,243	10,610	20,394	376	63
Jicarilla School—Jicarilla Apache.....	645	343	302	277	368	645		
Mescalero School—Mescalero Apache.....	627	304	323	275	352	602	17	8
Pueblo Bonito School—Navaho ¹	2,724	1,200	1,524	1,363	1,362	2,724		
Pueblo day schools.....	8,700	4,427	4,273	4,055	4,645	8,268	359	75
Navaho.....	371	176	195	190	181	371		
Pueblo.....	8,329	4,251	4,078	3,865	4,464	7,695	359	75
San Juan School—Navaho.....	6,354	3,190	3,164	3,500	2,854	6,354		
Zuni School—Pueblo.....	1,803	981	822	774	1,029	1,803		
New York.....	6,272	3,050	2,862	2,418	3,494			5,912
New York Agency.....	5,912	3,050	2,862	2,418	3,494			5,912
Cayuga.....	174	80	94	59	115			174
Oneida.....	256	126	130	90	166			256
Onondaga.....	549	269	280	174	375			549
Seneca (Allegany).....	953	497	456	415	538			953
Seneca (Cattaraugus).....	1,328	669	659	473	855			1,328
Seneca (Tonawanda).....	505	281	224	202	303			505
St. Regis (not a part of Six Nations).....	1,538	811	727	768	770			1,538
Tuscarora.....	359	192	167	112	247			359
Montauk.....	30	15	15	15	15			30
Poospatuck.....	20	10	10	10	10			20
Shinnecock.....	200	100	100	100	100			200
Not under agent.....	360							
North Carolina.....	8,118	1,221	1,061	1,191	1,091	1,000	900	382
Cherokee School—Eastern Cherokee	2,282	1,221	1,061	1,191	1,091	1,000	900	382
Not under agent.....	5,836							
North Dakota.....	8,903	4,442	4,461	4,310	4,593	4,647	4,195	61
Fort Berthold School ²	1,182	590	592	559	623	847	306	29
Arikara.....	417	205	212	202	215	260	144	13
Grosventre.....	497	248	249	231	266	368	114	15
Mandan.....	268	137	131	126	142	219	48	1
Fort Totten School—Sisseton, Wahpeton, and Cuthead Sioux (known as Devils Lake Sioux).....	1,002	518	484	476	526	1,002	(³)	(³)
Standing Rock School—Sioux.....	3,455	1,705	1,750	1,424	2,031	2,640	788	83
Turtle Mountain School—Turtle Mountain Chippewa.....	3,264	1,639	1,625	1,851	1,413	158	3,106	
Ohio: Not under agent.....	127							
Oklahoma.....	119,108	8,812	8,790	8,608	8,994	34,728	15,422	45,553
Cantonment School.....	785	422	363	331	454	737	32	16
Arapaho.....	238	132	106	108	130	228	10	
Cheyenne.....	547	290	257	223	324	509	23	16

¹ 1910 census.² Includes 183 Apaches; 1913 Fort Sill removal.³ 1916 report.⁴ Estimated.⁵ 1910 census, minus 250 Montauk, Poospatuck,

and Shinnecock.

⁶ Included in full blood.

TABLE 2.—*Indian population of the United States, exclusive of Alaska, June 30, 1917—Continued.*

States, superintendencies, and tribes.	Total population.	Male.	Female.	Minors.	Adults.	Full blood.	Mixed blood.	
							One-half or more.	Less than half.
Oklahoma—Continued.								
Cheyenne and Arapaho School.....	1,252	630	622	537	715	913	280	59
Arapaho.....	517	259	258	537	715	913	280	59
Cheyenne.....	735	371	364					
Kiowa School.....	4,554	2,233	2,321	2,243	2,311	2,275	1,937	342
Apache.....	183	87	96	2,243	2,311	2,275	1,937	342
Comanche.....	1,596	783	813					
Kiowa.....	1,564	753	811					
Wichita and Caddo.....	1,124	560	564					
Apache Prisoners.....	87	50	37					
Osage School—Osage.....	2,180	1,121	1,059	1,009	1,171	795	1,385	.....
Otoe School—Oto and Missouri.....	518	263	255	294	224	443	56	19
Pawnee School—Pawnee.....	714	345	369	353	361	556	124	34
Ponca School.....	1,045	530	515	648	397	389	429	237
Kaw (Kansas).....	357	187	170	275	82	98	32	237
Ponca.....	639	319	320	350	289	250	389	.....
Tonkawa.....	49	24	25	23	26	41	8	.....
Sac and Fox School.....	682	333	349	369	313	394	146	142
Iowa.....	84	35	49	33	51	45	39	.....
Sac and Fox.....	598	298	300	336	262	349	107	142
Seger School.....	758	368	390	293	465	693	23	42
Arapaho.....	150	66	84	68	82	132	8	10
Cheyenne.....	608	302	306	225	393	561	15	32
Seneca School.....	2,061	1,017	1,044	1,086	975	116	477	1,468
Eastern Shawnee.....	154	67	87	77	77	3	60	91
Ottawa.....	274	146	128	173	101	3	10	261
Quapaw.....	337	165	172	192	145	79	27	231
Seneca.....	435	213	222	236	199	13	279	143
Wyandot.....	468	245	223	178	290	.....	27	441
Peoria—Miami (citizen) ¹	393	181	212	230	163	18	74	301
Shawnee School.....	3,053	1,550	1,503	1,445	1,608	643	140	2,270
Absentee Shawnee.....	545	285	260	274	271	439	85	21
Citizen Potawatomi.....	2,296	1,156	1,140	1,085	1,211	.....	47	2,249
Mexican Kickapoo.....	212	109	103	86	126	204	8	.....
Five Civilized Tribes.....	101,506	.....	.....	.....	.....	26,774	10,393	40,984
Cherokee Nation.....	41,824	.....	.....	.....	.....	8,703	4,778	23,424
By blood.....	36,432	}	}	}	}	8,703	4,778	23,424
By intermarriage.....	296							
Delaware.....	187							
Freedmen.....	4,919							
Chickasaw Nation.....	10,966	.....	.....	.....	.....	1,515	966	3,823
By blood.....	5,659	}	}	}	}	1,515	966	3,823
By intermarriage.....	645							
Freedmen.....	4,662							
Choctaw Nation.....	26,823	.....	.....	.....	.....	8,444	2,473	9,882
By blood.....	17,488	}	}	}	}	8,444	2,473	9,882
By intermarriage.....	1,651							
Mississippi Choctaw.....	1,660							
Freedmen.....	6,029							
Creek Nation.....	18,761	.....	.....	.....	.....	6,858	1,698	3,396
By blood.....	11,952	}	}	}	}	6,858	1,698	3,396
Freedmen.....	6,809							

¹ 1916 report.

TABLE 2.—*Indian population of the United States, exclusive of Alaska, June 30, 1917—Continued.*

States, superintendencies, and tribes.	Total population.	Male.	Female.	Minors.	Adults.	Full blood.	Mixed blood.	
							One-half or more.	Less than half.
Oklahoma—Continued.								
Five Civilized Tribes—Continued.								
Seminole Nation.....	3,127					1,254	478	409
By blood.....	2,141					1,254	478	409
Freedmen.....	986							
Oregon.....	6,612	3,192	3,420	2,635	3,977	3,909	1,681	1,022
Klamath School—Klamath Modoc, Palute, and Pit River.....	1,160	545	615	518	642	818	265	77
Roseburg School—Scattered Indians on public domain ¹	3,000	1,500	1,500	1,080	1,920	1,500	1,125	375
Siletz School—Clackamas, Rogue River, Santiam, Siletz, Grande Ronde, Umpqua, etc.....	437	226	211	184	253	214	207	16
Umatilla School—Cayuse, Umatilla, and Walla Walla.....	1,197	551	646	534	663	591	52	554
Warm Springs School—Wasco, Tenino, and Palute.....	818	370	448	319	499	786	32	
Rhode Island: Not under agent.....	² 284							
South Carolina: Not under agent—Catawbas, Cherokee, Oneida, and others.....	² 331							
South Dakota.....	21,246	10,588	10,658	9,743	11,503	12,377	5,475	3,394
Cheyenne River School—Blackfeet, Miniconjou, Sans Arc, and Two Kettle Sioux.....	2,752	1,384	1,368	1,235	1,517	1,616	574	562
Crow Creek School—Lower Yanktonia Sioux.....	964	452	512	407	557	708	210	46
Flandreau School—Flandreau Sioux.....	291	154	137	107	184	225	66	
Lower Brule School—Lower Brule Sioux.....	504	252	252	246	258	231	230	43
Pine Ridge School—Oglala Sioux.....	7,247	3,640	3,607	3,310	3,937	4,667	1,326	1,254
Rosebud School—Rosebud Sioux.....	5,636	2,821	2,815	2,533	3,103	3,186	1,640	810
Sisseton School—Sisseton and Wahpeton Sioux.....	1,954	997	957	968	986	838	797	319
Yankton School—Yankton Sioux.....	1,898	888	1,010	937	961	906	682	360
Tennessee: Not under agent.....	² 216							
Texas: Not under agent.....	702							
Alabama.....	² 192							
Koosati, Seminole, Ileta, and others.....	² 510							
Utah.....	2,854	728	710	640	798	1,338	79	21
Goshute—Palute and others.....	153	80	73	82	71	153		
Shivwits School—Palute.....	130	62	68	56	74	130		
Uintah and Ouray Agency.....	1,155	586	569	502	653	1,055	79	21
Uinta Ute.....	437	206	231	502	653	1,055	79	21
Uncompaghe Ute.....	438	220	218					
White River Ute.....	280	160	120					
Not under agent—Palute and others.....	² 1,416							
Vermont: Not under agent.....	² 26							
Virginia: Not under agent.....	² 539							
Washington.....	11,181	5,489	5,599	4,831	6,257	7,135	2,551	1,402
Colville School—Confederated Colville.....	2,529	1,251	1,278	1,149	1,380	1,467	455	607

¹ Estimated.² 1910 census.

* Special agent's report 1910.

* Does not include 305 Indians of scattered bands.

TABLE 2.—Indian population of the United States, exclusive of Alaska, June 30, 1917—Continued.

States, superintendencies, and tribes.	Total population.	Male.	Female.	Minors.	Adults.	Full blood.	Mixed blood.	
							One-half or more.	Less than half.
Washington—Continued.								
Cushman School.....	2,132	1,065	1,047	978	1,154	1,330	597	206
Chehalis.....	111	64	47	50	61	68	43	.....
Muckleshoot.....	172	75	97	71	101	137	34	1
Nasqually.....	83	46	37	25	58	53	20	10
Skokomish (Challam).....	212	104	108	97	115	134	70	8
Squaxon Island.....	74	41	33	35	39	38	30	6
Unattached.....	1,480	755	725	700	780	900	400	180
Cowlitz.....	490	240	250	700	780	900	400	180
Challam.....	534	288	246					
Puyallup.....	152	75	77					
Various other Indians.....	304	152	152					
Neah Bay School.....	697	359	338	306	391	647	50	.....
Hoh.....	52	28	24	16	36	52	.....	.....
Makah.....	413	210	203	193	220	365	48	.....
Ozette.....	13	5	8	.....	13	13	.....	.....
Quileute.....	219	116	103	97	122	217	2	.....
Spokane School—Spokan.....	603	268	335	246	357	327	70	206
Taholah School.....	768	371	397	327	441	459	269	50
Queets River Reservation.....	48	20	28	15	33	46	2	.....
Quileute.....	15	4	11	2	13	13	2	.....
Quinalt.....	33	16	17	13	20	33	.....	.....
Quinalt Reservation—Quinalt.....	720	351	369	312	408	413	257	50
Tulalip School.....	1,359	680	679	639	720	905	420	34
Lummi.....	504	251	253	639	720	905	420	34
Susquamish.....	197	99	98					
Swinomish.....	222	111	111					
Tulalip (remnants of many tribes and bands).....	436	219	217					
Yakima School—Confederated Yakima.....	3,000	1,475	1,525	1,186	1,814	2,000	700	300
Not under agent.....	98	.....	.....	.....	.....	.....	.....	.....
West Virginia: Not under agent.....	36	.....	.....	.....	.....	.....	.....	.....
Wisconsin.....	10,216	5,223	4,993	4,442	5,774	5,423	2,696	1,491
Grand Rapids Agency—Potawatomi and Winnebago.....	1,372	679	693	545	827	1,358	9	5
Hayward School—Chippewa.....	1,277	622	655	499	778	223	881	173
Keshena School.....	2,351	1,256	1,095	1,087	1,264	420	884	441
Menominee.....	1,745	941	804	813	932	420	884	441
Stockbridge and Muncie.....	606	315	291	274	332	(^c)	(^c)	(^c)
Lac du Flambeau School—Chippewa.....	749	351	398	280	469	460	168	121
Leona Agency—Potawatomi.....	335	188	147	147	188	335	.....	.....
La Pointe School—Chippewa at Bad River.....	1,046	527	519	439	607	50	360	636
Oneida School—Oneida.....	2,575	1,328	1,247	1,208	1,367	2,575	.....	.....
Red Cliff School—Chippewa.....	511	272	239	237	274	2	394	115
Wyoming.....	1,674	861	813	778	896	1,199	261	214
Shoshone.....	1,674	861	813	778	896	1,199	261	214
Arapaho.....	840	423	408	415	425	714	116	10
Shoshoni.....	834	429	405	363	471	485	145	204

¹ Overestimated previous years. ² Estimated. ³ 1910 census. ⁴ Now citizens. ⁵ Unknown.

TABLE 3.—Indians under Federal supervision—Unallotted and holding trust and fee patents, June 30, 1917.

States and superintendencies.	Total Indians under Federal super- vision.	Allotted.				Un- allotted.
		Total allotted.	Holding trust or restricted fee patents.	Holding fee patents for—		
				Part of allot- ment.	Entire allot- ment.	
Total, 1917.....	309,409	179,374	67,972	3,495	107,907	120,065
1916.....	312,654	184,865	72,508	3,492	108,865	126,547
1915.....	309,911	182,289	68,980	2,623	110,686	126,379
1914.....	307,891	180,605	69,944	1,643	109,018	124,797
1913.....	307,433	183,742	72,411	1,420	109,911	121,223
1912.....	300,980	177,626	103,417	1,926	70,904	120,876
1911.....	296,320	164,215	88,182		176,083	120,780
1901 ¹	247,522	64,853				
1890 ²	230,437	15,166				
Arizona.....	44,617	5,233	5,233			29,384
Camp Verde.....	439					439
Colorado River.....	1,207	1,207	1,207			
Fort Apache.....	2,609					2,609
Havasupai.....	173					173
Kaibab.....	95					95
Leupp.....	1,536					1,536
Moqui.....	4,200					4,200
Navajo.....	12,080					12,080
Pima ³	6,253	3,243	3,243			3,010
Salt River.....	1,232	687	687			545
San Carlos.....	2,659					2,659
San Xavier.....	5,112	96	96			5,016
Truxton Canon.....	457					457
Western Navajo.....	6,565					6,565
California.....	10,362	2,949	2,934		15	7,413
Bishop.....	1,600	236	234		2	1,364
Campo.....	223					223
Digger.....	299					299
Fort Bidwell.....	756	198	196			558
Fort Yuma.....	833	728	728			105
Greenville.....	629	210	210			419
Hoopa Valley.....	1,299	835	824		11	464
Maliki.....	629					629
Pala.....	1,023	186	186			837
Round Valley.....	1,700	496	494		2	1,204
Soboba.....	921					921
Tule River.....	440	60	60			380
Colorado.....	898	211	211			687
Southern Ute.....	372	211	211			161
Ute Mountain.....	526					526
Florida: Seminole.....	586					586
Idaho.....	4,168	2,987	2,701	37	199	1,231
Coeur d'Alene.....	826	505	484		71	321
Fort Hall.....	1,769	1,591	1,562		29	178
Fort Lapwai.....	1,573	841	706	37	99	733
Iowa: Sac and Fox.....	360					360
Kansas.....	1,421	754	591	87	76	667
Kickapoo.....	640	288	238	12	38	352
Potawatomi.....	781	466	353	75	38	315
Michigan: Mackinac.....	1,097	73	73			1,024
Minnesota.....	11,777	5,063	4,284	549	220	6,724
Fond du Lac.....	1,056	298	274	12	7	763
Grand Portage.....	321	164	146		18	157
Leech Lake.....	1,770	977	988	4	35	798

¹ Includes fee patents for part of their allotment.² Only items reported.³ 1916 report.⁴ Erroneously reported last year.

TABLE 3.—Indians under Federal supervision—Unallotted and holding trust and fee patents, June 30, 1917—Continued.

States and superintendencies.	Total Indians under Federal super- vision.	Allotted.				Un- allotted.
		Total allotted.	Holding trust or restricted fee patents.	Holding fee patents for—		
				Part of allot- ment.	Entire allot- ment.	
Minnesota—Continued.						
Nett Lake.....	607	290	290	.....	.....	317
Pipestone (Birch Cooley).....	160	42	42	.....	.....	118
Red Lake.....	1,492	.....	.....	.....	.....	1,492
White Earth.....	6,371	3,287	2,594	533	160	3,084
Montana.....	11,525	7,088	6,449	164	475	4,437
Blackfeet.....	2,752	2,321	2,319	1	1	451
Crow.....	1,710	1,234	1,166	9	59	476
Flathead.....	2,410	1,874	1,487	28	359	536
Fort Belknap.....	1,206	.....	.....	.....	.....	1,206
Fort Peck.....	1,986	1,659	1,477	126	56	327
Tongue River.....	1,461	.....	.....	.....	.....	1,461
Nebraska.....	3,617	1,235	592	46	597	2,382
Omaha.....	1,318	580	278	18	284	738
Santee ¹	1,194	314	125	14	175	880
Winnebago.....	1,105	341	189	14	138	764
Nevada.....	7,944	1,452	1,447	.....	5	6,492
Fallon.....	429	319	319	.....	.....	110
Fort McDermitt.....	350	86	86	.....	.....	264
Mojave River.....	120	108	108	.....	.....	12
Nevada.....	614	.....	.....	.....	.....	614
Walker River.....	706	329	329	.....	.....	377
Western Shoshone.....	625	.....	.....	.....	.....	625
Reno, special agent.....	5,100	610	605	.....	5	4,490
New Mexico.....	20,853	495	495	.....	.....	20,358
Jicarilla.....	645	495	495	.....	.....	150
Mescalero.....	627	.....	.....	.....	.....	627
Pueblo Bonito ²	2,724	.....	.....	.....	.....	2,724
Pueblo day schools.....	8,700	.....	.....	.....	.....	8,700
San Juan.....	6,354	.....	.....	.....	.....	6,354
Zuni.....	1,803	.....	.....	.....	.....	1,803
New York: New York Agency.....	5,912	.....	.....	.....	.....	5,912
North Carolina: Cherokee.....	2,282	.....	.....	.....	.....	2,282
North Dakota.....	8,903	7,532	6,439	304	789	1,371
Fort Berthold ²	1,182	1,007	988	17	2	175
Fort Totten.....	1,002	438	308	80	50	564
Standing Rock.....	3,455	3,257	3,100	92	65	198
Turtle mountain.....	3,264	2,830	2,043	115	672	434
Oklahoma.....	116,419	110,443	6,647	901	102,895	5,976
Cantonment.....	785	373	346	6	21	412
Cheyenne and Arapaho.....	1,252	647	514	37	96	605
Five Civilized Tribes.....	101,506	101,506	.....	.....	* 101,506	.....
Kiowa.....	4,554	3,077	2,882	59	156	1,477
Osage.....	2,180	1,828	1,387	441	.....	352
Otoe.....	518	311	139	151	21	207
Pawnee.....	714	295	240	16	39	419
Ponca.....	1,045	617	474	90	53	428
Sao and Fox.....	682	241	102	16	123	441
Seger.....	758	420	393	15	12	338
Seneca.....	1,668	768	.....	.....	768	900
Shawnee.....	4,757	380	190	70	100	397

¹ Ponca Indians not included.² 1916 report.

* 29,719 restricted Indians as to alienation.

* Does not include citizen Potawatomi.

TABLE 3.—*Indians under Federal supervision—Unallotted and holding trust and fee patents, June 30, 1917—Continued.*

States and superintendencies.	Total Indians under Federal super- vision.	Allotted.				Un- allotted.
		Total allotted.	Holding trust or restricted fee patents.	Holding fee patents for—		
				Part of allot- ment.	Entire allot- ment.	
Oregon.....	11,612	3,969	3,619	18	333	7,643
Klamath.....	1,160	783	759	.....	24	377
Roseburg.....	18,000	2,000	1,977	.....	23	6,000
Siletz.....	437	227	116	17	94	210
Umatilla.....	1,197	518	330	1	187	679
Warm Springs.....	818	441	437	.....	4	377
South Dakota.....	21,246	17,984	15,640	1,245	1,099	3,262
Cheyenne River.....	2,752	2,715	2,610	38	67	37
Crow Creek.....	964	964	906	1	57	.....
Flandreau.....	291	.....	.....	.....	.....	291
Lower Brule.....	504	504	400	18	86	.....
Pine Ridge.....	7,247	6,424	5,768	568	58	823
Rosebud.....	5,636	5,636	5,280	102	254	.....
Sisseton.....	1,934	950	438	291	221	1,004
Yankton.....	1,898	791	238	197	356	1,107
Utah.....	1,438	620	616	2	2	818
Goshute.....	153	.....	.....	.....	.....	153
Shivwits.....	130	.....	.....	.....	.....	130
Uintah and Ouray.....	1,155	620	616	2	2	535
Washington.....	11,088	6,974	6,733	49	192	4,114
Colville.....	2,529	2,478	2,423	.....	55	51
Cushman.....	2,132	164	156	4	4	1,968
Neah Bay.....	697	276	276	.....	.....	421
Spokane.....	603	476	431	4	41	127
Taholah.....	768	507	507	.....	.....	261
Tulalip.....	1,359	182	169	1	12	1,177
Yakima.....	3,000	2,891	2,771	40	80	109
Wisconsin.....	9,610	3,014	1,985	89	940	6,596
Grand Rapids.....	1,372	.....	.....	.....	.....	1,372
Hayward (Lac Courte Oreille).....	1,277	527	514	13	.....	750
Keshena.....	1,745	.....	.....	.....	.....	1,745
Lac du Flambeau.....	749	356	342	.....	14	393
Leona.....	335	.....	.....	.....	.....	335
La Pointe.....	1,046	1,046	962	.....	84	.....
Onesida.....	2,575	959	76	76	807	1,616
Red Cliff.....	511	126	91	.....	35	385
Wyoming: Shoshone.....	1,674	1,358	1,283	4	71	316

¹ Includes 5,000 Indians in California.² Does not include Stockbridge and Munsee citizen Indians.

TABLE 4.—Marriages, missionaries, churches, English language, dress, citizenship, crimes, misdeemeanors, etc., June 30, 1917.¹

States and superintendencies.	Marriages.				Crimes.		Misdemeanors.		Arrests for drunkenness.		Missionaries working among Indians.		Churches among Indians.		Indians who—						
															Protestant.	Catholic.	Speak English.	Read and write English language.	Wear citizens' clothing.	Are citizens of the United States.	Are voters.
	Between Indians and whites.	Between Indians.	By tribal custom.	By legal procedure.	By Indians.	By whites.	By Indians.	By whites.	Indians.	Whites.	Protestant.	Catholic.									
Total, 1917.	280	1,597	337	1,510	846	235	90	1,156	325	1,005	430	275	617	515	42,078	87,405	116,435	75,905	191,207	72,983	26,335
1916.	176	1,717	408	1,386	421	263	167	1,004	221	1,119	390	257	617	310	40,510	56,931	113,494	74,973	191,201	72,983	26,335
1915.	111	1,633	474	1,210	319	312	120	942	165	1,459	431	291	625	225	37,480	51,638	113,628	74,973	182,486	72,082	26,094
1914.	168	1,832	406	1,516	154	305	229	831	612	1,315	431	282	583	253	39,577	49,025	104,894	66,208	178,186	60,241	22,118
1913.	200	1,800	516	1,494	201	282	244	822	348	1,950	425	277	554	243	34,186	46,251	100,208	67,865	161,586	74,243	22,118
1912.	172	2,151	779	1,544	688	266	207	1,364	327	2,055	386	258	513	213	39,587	86,082	90,431	54,843	149,621	76,543	22,118
1911.	172	2,151	779	1,544	688	266	207	1,364	327	2,055	386	258	513	213	39,587	86,082	90,431	54,843	149,621	76,543	22,118
1910.	172	2,151	779	1,544	688	266	207	1,364	327	2,055	386	258	513	213	39,587	86,082	90,431	54,843	149,621	76,543	22,118
1909.	172	2,151	779	1,544	688	266	207	1,364	327	2,055	386	258	513	213	39,587	86,082	90,431	54,843	149,621	76,543	22,118
1908.	172	2,151	779	1,544	688	266	207	1,364	327	2,055	386	258	513	213	39,587	86,082	90,431	54,843	149,621	76,543	22,118
Arizona.	1	433	133	301	313	44	1	353	2	79	72	24	59	59	4,415	9,510	8,116	6,272	26,176	29	23
Camp Verde.	9	9	2	7	1	7	1	4	1	5	1	1	2	1	65	230	230	165	439	1	1
Colorado.	10	10	4	10	8	1	1	56	8	8	2	2	130	2	130	608	608	608	1,207	1	1
Fort Apache.	4	4	1	4	1	1	1	1	1	1	2	1	1	1	200	200	200	200	1,550	200	200
Havasupai.	4	4	1	4	1	1	1	1	1	1	1	1	1	1	200	200	200	200	1,550	200	200
Kalispel.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	200	200	200	200	1,550	200	200
Leupp.	23	23	15	8	41	2	1	41	1	3	13	13	6	3	137	200	200	123	1,200	66	81
Moqui.	22	22	15	16	30	6	6	41	1	50	13	13	6	6	146	200	200	123	1,200	66	81
Navajo.	1	1	1	1	1	1	1	1	1	1	7	7	10	10	416	550	550	550	1,000	20	20
Phoenix.	49	49	15	49	1	5	5	49	1	2	3	3	14	14	1,800	3,740	3,740	3,740	6,253	20	20
Salt River.	35	35	15	35	1	5	5	3	2	2	3	3	6	6	1,800	3,740	3,740	3,740	6,253	20	20
San Carlos.	19	19	7	19	6	7	7	226	2	2	3	3	6	6	1,800	3,740	3,740	3,740	6,253	20	20
San Xavier.	12	12	9	12	5	5	5	1	6	6	13	9	13	13	1,800	3,740	3,740	3,740	6,253	20	20
Truxton Canon.	12	12	9	12	5	5	5	1	6	6	13	9	13	13	1,800	3,740	3,740	3,740	6,253	20	20
Western Navajo.	50	50	80	50	50	2	2	3	3	3	9	9	2	2	75	4,575	1,590	6,272	26,176	29	23

1 Exclusive of Five Civilized Tribes.

2 Overestimated last year.

3 1916 report.

4 Not reported.

¹ Not reported.

² 1916 report.

³ Overestimated last year.

⁴ Exclusive of Five Civilized Tribes.

TABLE 4.—*Marriages, missionaries, churches, English language, dress, citizenship, crime, misdeemeanors, etc., June 30, 1917.*—Continued.

States and superintendencies.	Marriages.				Plural marriages existing June 30, 1917.		Crimes.		Misdeemeanors.		Arrests for drunkenness.		Missionaries working among Indians.		Church-going Indians.		Indians who—				
	Between Indians and whites.	Between Indians.	By tribal custom.	By legal procedure.	By Indians.	By whites.	By Indians.	By whites.	By Indians.	Whites.	Indians.	Indians.	Protestant.	Catholic.	Protestant.	Catholic.	Speak English.	Read and write English language.	Wear clothing.	Are citizens of the United States.	Are voters.
California.....	4	62	17	49	2	11	2	15	.....	.....	82	.....	26	27	36	3,623	3,814	3,873	11,135	3,869	1,319
Bishop.....	.....	3	.....	3	.....	.....	.....	.....	.....	.....	5	.....	3	.....	1	323	1,210	620	1,663	.....	30
Campo.....	.....	1	3	1	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	108	60	.....	.....	4
Digger.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	399	60	.....	.....	12
Fort Bidwell.....	.....	12	11	1	.....	.....	.....	.....	.....	.....	30	.....	.....	.....	.....	.....	600	60	.....	.....	.....
Fort Yuma.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	19	.....	.....	.....	.....	.....	600	60	.....	.....	.....
Greenville.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	19	.....	.....	.....	.....	.....	600	60	.....	.....	.....
Hoop Valley.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....	.....	.....	.....	.....	600	60	.....	.....	.....
Maki.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	0	.....	.....	.....	.....	.....	600	60	.....	.....	.....
Pala.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	600	60	.....	.....	.....
Round Valley.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	8	.....	.....	.....	.....	.....	600	60	.....	.....	.....
Sherman Institute.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	600	60	.....	.....	.....
Soboba.....	.....	6	8	5	.....	.....	.....	.....	.....	.....	6	.....	.....	.....	.....	.....	600	60	.....	.....	.....
Tule River.....	.....	7	.....	7	.....	.....	.....	.....	.....	.....	6	.....	.....	.....	.....	.....	600	60	.....	.....	.....
Colorado.....	.....	7	5	2	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	600	60	.....	.....	.....
Southern Ute.....	.....	3	1	2	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	100	60	.....	.....	.....
Ute Mountain.....	.....	4	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	263	2	.....	.....	.....
Florida: Seminole.....	.....	4	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	260	13	.....	.....	.....
Idaho.....	6	20	5	21	2	10	4	10	.....	.....	59	.....	8	12	14	1,166	1,960	1,266	4,117	1,067	1,067
Coeur d'Alene.....	2	4	.....	6	.....	6	4	10	.....	.....	11	.....	.....	.....	.....	.....	480	365	.....	.....	.....
Fort Hall.....	2	5	3	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	600	300	.....	.....	.....
Fort Lapwai.....	2	11	2	11	2	.....	.....	.....	.....	.....	11	.....	.....	.....	.....	.....	1,000	900	.....	.....	.....
Iowa: Sag and Fox.....	.....	6	.....	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	25	25	.....	.....	.....

	1	15	16		1	1	7	8	8	1	5	185	200	904	815	1,431	1,106	608
Kansas.....																		
Kikapoo.....	1	11	12		1		2	2	1	3	3	105	200	289	490	640	640	285
Potawatomi.....	(*)	4	4				4	3		2	2	20	200	425	325	781	466	351
Michigan: Mackinac.....	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)			9	407	600	350	700	1,087	1,087	581
Minnesota.....	9	63	69		2		34	4	17	11	35	1,408	2,998	7,427	4,741	11,908	9,376	2,713
Fond du Lac.....	1	1	2		1		7		1	1	5	50	915	900	600	1,058	598	264
Grand Portage.....	1	4	2							1	1	15	308	311	300	321	331	260
Yankton.....	3	38	39				10	3	3	1	0	359	568	810	690	1,770	1,770	540
Neoti Lake.....	3	8	8				10	3	1	2	2	359	568	810	690	1,770	1,770	540
Pigeon Lake (Birch Cooley).....	3	15	15		1		9	1	1	4	4	180	15	300	150	607	300	285
Red Lake.....	3	15	15				9	1	1	4	4	180	15	300	150	607	300	285
Vermillion Lake.....	1	1	2				6	1	1	3	3	300	700	72	69	180	180	40
White Earth.....	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	12	45	1,000	500	1,482	1,482	100
Montana.....	23	120	11	131	9	39	83	41	23	51	44	1,380	6,420	6,267	3,900	6,371	6,309	1,364
Blackfoot.....	7	47	(*)	54	6	9	32	21	3	2	5	365	2,000	1,800	1,000	2,752	584	583
Crow.....	(*)	24	(*)	31	4	24	6	9	3	2	6	350	2,000	1,875	1,000	1,050	50	59
Flathead.....	7	24	(*)	31	4	24	6	9	3	2	6	350	2,000	1,875	1,000	1,050	50	59
Fort Belknap.....	2	15	17	3	1	24	3	8	6	36	11	100	700	1,700	1,320	2,400	383	358
Fort Peck.....	6	20	26	3	3	3	3	3	3	6	6	475	455	1,252	660	1,206	135	135
Tongue River.....	14	11	3	3	3	3	2	3	3	2	4	70	365	1,352	660	1,006	135	135
Nebraska.....	4	40	44	3	1	1	57		15	7	10	1,096	69	2,575	2,150	3,617	2,934	962
Omaha.....	1	8	9	3	1		23	3	1		1	83		825	800	1,318	685	312
Santee.....	3	7	10	15			20	13	13	6	6	705	69	800	800	1,194	1,104	370
Winnebago.....	25	25	25	2			20	11	7	3	3	308	1	860	700	1,106	1,106	800
Nevada.....	2	34	26	3	1		42	34	13	7	7	375	7,192	7,192	1,465	7,944	1,433	40
Fallon.....	4	4	4				38	28	2	1	1	80		7,422	75	7,422	1,433	40
Fort McDermitt.....	5	5	5	1			28	28	2	1	1	80		7,422	75	7,422	1,433	40
Mojave River.....	2	1	1				1	1	1	1	1	225	300	300	100	250	250	
Nevada.....	9	9	9	1			4	4	1	1	1	225	300	300	100	250	250	
Walker River.....	1	4	5	1			1	1	1	1	1	10	400	400	85	706	1,712	
Western Shoshone.....	1	10	10	1	1	(*)	1	1	1	1	1	60	400	400	250	625	300	40
Reno, special agent.....	1	(*)	1	1	(*)	(*)	(*)	(*)	(*)	(*)	4	(*)	(*)	5,000	800	5,100	300	40
New Mexico.....	18	123	92	1	24	7	72	4	19	18	26	286	8,632	6,015	4,800	12,927	5,380	
Jicarilla.....	1	16	11				7	7	4	4	2	(*)	(*)	6,015	200	215	400	
Mescalero.....	15	7	17		1		10	7	4	4	2	(*)	(*)	6,015	200	215	400	
Pueblo Ponto.....	2	41	15	(*)			40	4	2	1	3	2	376	250	150	667	1,300	
Pueblo day schools.....	2	41	15	(*)			40	4	2	1	3	2	376	250	150	667	1,300	
San Juan.....	12	12	12	19	7	22	19	2	16	20	119	8,257	4,250	4,250	2,175	8,700	13,525	
Zuni.....	47	47	47	4	4	19	5	4	4	4	1	3	8	4,250	2,175	8,700	13,525	
1 1916 report.....			43		1		6	4	4	4	1	3	8	4,250	2,175	8,700	13,525	

* Estimated.

* Does not include Paces Indians.

* Under State jurisdiction.

* Not reported.

* Unknown.

TABLE 4.—*Marriages, missionaries, churches, English language, dress, citizenship, crimes, misdemeanors, etc., June 30, 1917*—Continued.

States and superintendencies.	Marriages.				Plural marriages existing June 30, 1917.	Crimes.		Misdemeanors.		Arrests for drunkenness.		Missionaries working among Indians.		Churches among Indians.		Indians who—				
	Between Indians and whites.	Between Indians.	By tribal custom.	By legal procedure.		By Indians.	By whites.	By Indians.	By whites.	Indians.	Whites.	Protestant.	Catholic.	Protestant.	Catholic.	Speak English language.	Read and write English language.	Wear citizens' clothing.	Are citizens of the United States.	Are voters.
New York: New York Agency.....	3	23		26	1	1					4	1	15	12,912	1,448	5,912	5,912	5,912	256	75
North Carolina: Cherokee.....																				
North Dakota.....	19	67	1	85	3	10	22	69			11	16	34	1,718	5,539	5,300	3,100	8,903	6,979	3,762
Fort Berthold.....	1	6		10		4		7			4	2	9	245	950	950	500	1,182	298	285
Fort Totten.....		28		27		7		44			2	3	6	254	1,467	1,600	660	1,032	1,002	260
Standing Rock.....		6		7	3	5	20	18			3	4	17	575	1,462	1,600	700	2,455	3,455	672
Turtle Mountain.....	17	24	1	40		6	2	10			1	2	3	224	1,640	1,200	1,300	2,254	2,254	2,254
Oklahoma.....	99	158	16	241	2	19	43	198	48		46	6	54	2,998	1,902	13,110	9,923	16,226	17,180	3,315
Cherokee.....	1	10		10		2	2	8			4	7	4	177	1,177	500	500	638	1,780	1,780
Cherokee and Arapaho.....	1	8	1	8	1	2		9			4		4	155	400	825	430	1,363	1,363	324
Kloya.....	54	31	2	83		7	3	10			11	3	13	925	400	2,732	1,396	1,095	1,554	91
Osage.....	12	13		26	1	6	30	190	48		22	3	22	1,475	1,600	1,889	1,748	1,945	2,187	530
Otoe.....	3	17		19		2	2	2			2	2		167	1,600	1,456	1,446	1,945	2,187	515
Pawnee.....	3	12		15		1	7				2	2		234	1,600	1,456	1,446	1,945	2,187	515
Pawnee.....	2	13		13							1	1	1	100	1	570	570	714	714	116
Pawnee.....	1	4		5							1	1	1	100	1	570	570	714	714	116
Sao and Fox.....	1	4		5							1	1	1	100	1	570	570	714	714	116
Seger.....	8	8		8							10	1	3	302	57	370	300	753	753	155
Seneca.....	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	4	1	3	(1)	(1)	1,668	1,572	1,668	1,668	722
Shawnee.....	25	43	13	55		(1)	(1)	(1)	(1)	(1)	2	2	3	44	(1)	2,746	2,535	2,535	3,053	846
Oregon.....	8	31	6	33		12	2	70	1		10	2	9	1,055	685	8,685	2,591	10,976	4,894	4,277
Klamath.....	1	9		10		9	1	47			2	2	2	308		1,130	576	1,160	8	8
Roseburg.....	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	4	1	1	(1)	(1)	6,000	2,000	3,000	2,000	2,000
Siletz.....	2	(1)	(1)	2	(1)	(1)	(1)	(1)	(1)	(1)	1	1	2	97	210	345	210	437	437	283
Umatilla.....	7	10	6	11		(1)	(1)	(1)	(1)	(1)	2	1	2	280	475	600	280	561	571	571
Warm Springs.....	10	10		10		(1)	(1)	(1)	(1)	(1)	2	1	3	300	475	600	280	561	571	445

Pennsylvania: Carlisle																					
South Dakota	27	180	17	190	8	16	5	100	2	74	4	108	51	162	13,441	5,399	12,367	8,199	31,206	7,087	2,896
Chayenne River	1	21	22	2	3	2	38	5	11	11	4	4	1	9	1,597	1,101	1,001	2,967	2,485	21	
Crow Creek	2	12	14	1	3	2	8	5	5	5	1	2	1	9	706	706	600	1,064	983	27	
Flandreau	5	7	7	7	2	2	7	7	7	1	7	2	1	2	361	178	324	300	291	59	
Lower Brule	2	5	5	5	2	2	5	5	5	1	5	2	1	7	361	372	368	304	96	96	
Pierre	5	5	5	5	2	2	5	5	5	1	5	2	1	7	361	372	368	304	96	96	
Pine Ridge	9	18	47	6	4	6	76	1	76	1	76	42	30	12	3,813	5,200	2,700	7,200	200	100	
Reeohud	7	40	47	3	1	3	50	1	50	26	26	42	30	12	3,813	5,200	2,700	7,200	200	100	
Sisseton	6	27	17	16	2	2	1	1	1	10	4	13	11	11	2,702	2,690	1,500	1,500	1,375	1,375	
Yankton	16	16	16	16	2	2	23	23	23	24	4	13	9	9	1,000	1,000	1,000	1,000	1,000	1,000	
Utah	24	22	2	2	31	1	1	1	1	5	1	8	4	4	370	153	153	863	1,155	1,155	
Goshute	2	2	2	2	30	1	1	1	1	3	1	1	1	1	153	153	153	863	1,155	1,155	
Silvies	22	22	22	22	1	1	1	1	1	2	1	4	3	3	168	300	300	115	600	600	
Utah and Ouray	14	65	14	79	2	2	6	91	20	77	10	10	10	33	1,664	2,925	9,066	11,066	7,060	631	
Washington	18	20	20	20	2	2	6	9	9	8	10	12	11	11	33	900	1,700	1,000	7,716	7,716	
Colville	12	13	13	13	2	2	6	9	9	8	10	12	11	11	33	900	1,700	1,000	7,716	7,716	
Cushman	2	11	11	11	2	2	6	9	9	8	10	12	11	11	33	900	1,700	1,000	7,716	7,716	
Neah Bay	1	4	4	4	2	2	6	9	9	8	10	12	11	11	33	900	1,700	1,000	7,716	7,716	
Spokane	1	4	4	4	2	2	6	9	9	8	10	12	11	11	33	900	1,700	1,000	7,716	7,716	
Taholah	1	4	4	4	2	2	6	9	9	8	10	12	11	11	33	900	1,700	1,000	7,716	7,716	
Tulalip	1	4	4	4	2	2	6	9	9	8	10	12	11	11	33	900	1,700	1,000	7,716	7,716	
Yatima	1	4	4	4	2	2	6	9	9	8	10	12	11	11	33	900	1,700	1,000	7,716	7,716	
Wisconsin	12	100	38	74	2	2	122	24	131	13	21	26	2	2	3,122	6,914	5,265	9,610	4,245	1,633	
Grand Rapids	40	132	8	8	3	3	1	1	15	6	2	2	1	4	1,000	1,000	1,700	1,272	1,232	1,120	
Hayward	6	6	6	6	2	2	6	6	6	6	6	6	1	4	1,000	1,000	1,700	1,272	1,232	1,120	
Leshon	4	12	12	12	2	2	46	3	53	3	53	1	1	1	1,470	1,470	1,660	1,277	1,277	1,260	
Lao du Flambeau	8	8	8	8	2	2	8	8	8	8	8	8	1	1	1,560	1,560	1,940	1,461	1,461	1,461	
Leshon	8	8	8	8	2	2	8	8	8	8	8	8	1	1	1,560	1,560	1,940	1,461	1,461	1,461	
Le Poudre	6	16	16	16	2	2	16	2	20	18	6	15	3	3	1,800	1,800	2,200	1,646	1,646	1,646	
La Platte	2	14	14	14	2	2	14	2	21	20	7	7	2	2	2,000	2,000	1,500	1,046	1,046	793	
Ogish	5	5	5	5	2	2	5	5	5	5	5	5	1	1	2,202	2,202	1,500	1,046	1,046	793	
Red Cliff	1	23	23	23	2	2	23	23	23	24	4	13	11	17	863	1,060	1,850	1,674	56	56	
Wyoming: Shoshone																					

Under State Jurisdiction.

Not reported.

Arrests by public officers

1916 report :

Estimated

TABLE 5.—Area of Indian lands June 30, 1917.

States and reservations.	Number of allotments.	Area, in acres.		
		Allotted.	Unallotted.	Total.
Grand total.....	220,046	35,740,001	35,555,517	71,295,518
Total reservations.....	212,368	34,686,721	35,555,517	70,202,238
Total public domain.....	7,678	1,103,280		1,103,280
Arizona.....	1,743	81,489	18,571,125	18,652,614
Camp McDowell (Salt River).....			24,971	24,971
Colorado River.....	588	5,879	234,320	240,699
Fort Apache.....			1,681,520	1,681,520
Fort Mojave (Colorado River).....			31,328	31,328
Gila Bend (Pima).....			10,331	10,331
Gila River (Pima).....			371,422	371,422
Havasupai (Suppai).....			518	518
Hualapai (Truxton Canon).....			730,940	730,940
Kaibab.....			138,240	138,240
Moqui (Hopi).....			2,472,320	2,472,320
Navajo (see New Mexico and Utah).....	60	9,600	8,774,397	8,783,997
Papago.....			2,129,114	2,129,114
Papago (San Xavier).....	281	41,608	114,348	155,954
Salt River.....	804	24,404	22,316	46,720
San Carlos.....			1,834,240	1,834,240
California.....	2,598	82,172	434,896	517,068
Digger.....			530	530
Hoope Valley.....	639	29,091	99,051	128,142
Mission.....				
Agua Caliente (Malki).....			7,205	7,205
Augustine (Malki).....			616	616
Cabazon (Malki).....			1,280	1,280
Cahuilla (Soboba).....			18,880	18,880
Campo.....			1,640	1,640
Capitan Grande (Pala).....			15,080	15,080
Cuyapiipa (Campo).....			4,080	4,080
Inaja (Soboba).....			760	760
Laguna (Campo).....			320	320
La Posta (Campo).....			3,679	3,679
Los Coyotes (Soboba).....			21,520	21,520
Manzanita (Campo).....			19,680	19,680
Martinez (Malki).....			1,280	1,280
Mesa Grande (Soboba).....			4,400	4,400
Mission Creek (Malki).....			1,320	1,320
Morongo (Malki).....			11,069	11,069
Pala.....	177	1,396	3,084	4,480
Pechanga or Temecula (Pala).....	85	1,299	3,998	5,195
Potrero or La Jolla (Pala).....			8,329	8,329
Ramona (Soboba).....			580	580
Rincon (Pala).....			2,554	2,554
San Manuel (Malki).....			653	653
San Pascual (Pala).....			2,200	2,200
Santa Rosa (Soboba).....			2,560	2,560
Santa Ynez Soboba.....			120	120
Santa Ysabel (Soboba).....			15,042	15,042
Soboba.....			5,461	5,461
Syquan (Pala).....	17	270	370	640
Torres (Malki).....			20,800	20,800
Tuolumne.....			34	34
Twenty-nine Palms (Malki).....			480	480
Palute.....			75,806	75,806
Round Valley.....	877	42,106		42,106
Tule River.....			48,551	48,551
Yuma (Fort Yuma).....	798	8,010	31,376	39,386
Colorado.....	372	72,781	395,143	468,574
Ute (Ute Mountain and Southern Ute).....	371	72,651	395,143	468,794
Absentee Wyandot.....	1	80		80
Florida: Seminole.....			23,542	23,542
Idaho.....	4,377	628,098	54,841	682,939
Coeur d'Alene.....	638	104,077		104,077
Fort Hall.....	1,868	345,209	21,263	366,472
Lapwai (Nez Perce).....	1,876	178,812	33,578	212,390
Iowa: Sac and Fox.....			3,251	3,251

TABLE 5.—Area of Indian lands June 30, 1917—Continued.

States and reservations.	Number allotments.	Area, in acres.		
		Allotted.	Unallotted.	Total.
Kansas	3,079	372,519	.....	372,519
Chippewa and Munsee (Potawatomi).....	100	4,195	.....	4,195
Iowa (Kickapoo).....	143	11,769	.....	11,769
Kickapoo.....	351	27,691	.....	27,691
Potawatomi.....	3,363	220,785	.....	220,785
Sac and Fox (Kickapoo).....	122	8,079	.....	8,079
Michigan	2,648	153,227	191	153,418
Isabella.....	1,943	98,395	191	98,581
L'Anse.....	669	52,201	.....	52,206
Ontonagon.....	36	2,631	.....	2,631
Minnesota	8,360	954,255	553,896	1,508,153
Bois Fort (Nett Lake).....	712	56,782	.....	56,782
Deer Creek (Nett Lake).....	4	296	.....	296
Fond du Lac.....	591	36,486	.....	36,486
Grand Portage.....	304	24,191	.....	24,191
Leech Lake.....	631	48,520	.....	48,520
Medwakanton (Birch Cooley).....	135	12,582	.....	12,582
Red Lake.....	.....	.....	543,528	543,528
Vermillion Lake.....	.....	.....	1,080	1,080
White Earth.....	5,157	710,665	9,280	719,955
White Oak Point and Chippewa (Leech Lake).....	826	64,733	.....	64,733
Montana	6,913	1,434,983	4,366,409	5,801,392
Blackfoot.....	7	2,220	1,491,167	1,498,387
Crow.....	2,450	481,109	1,832,104	2,313,213
Fort Belknap.....	.....	.....	497,600	497,600
Fort Peck.....	2,028	728,196	.....	728,196
Joeck (Flathead).....	2,428	228,408	.....	228,408
Northern Cheyenne (Tongue River).....	.....	.....	489,500	489,500
Rocky Boy.....	.....	.....	56,088	56,088
Nebraska	4,037	383,424	6,118	389,542
Omaha.....	1,460	120,642	4,380	125,022
Ponca (Santee).....	168	27,226	.....	27,226
Santee (Niobrara).....	850	73,261	.....	73,261
Sioux (additional).....	.....	.....	640	640
Winnebago.....	1,559	122,206	1,098	123,303
Nevada	979	14,133	686,064	700,197
Duck Valley (Western Shoshone).....	.....	.....	321,920	321,920
Moapa River.....	117	806	523	1,329
Palute (Fallon).....	366	3,660	990	4,646
Pyramid Lake (Nevada).....	.....	.....	322,000	322,000
Walker River.....	496	9,878	40,681	50,569
New Mexico	2,800	673,175	3,951,049	4,624,224
Jicarilla Apache.....	796	353,812	407,300	761,112
Mescalero Apache.....	.....	.....	474,240	474,240
Navajo (see Arizona and Utah).....	2,004	319,363	1,980,687	2,300,050
Pueblo.....	.....	.....	85,792	85,792
Acosta (Albuquerque).....	.....	.....	24,266	24,266
Cochiti.....	.....	.....	110,080	110,080
Isleta (Albuquerque).....	.....	.....	42,859	42,859
Jemes.....	.....	.....	101,511	101,511
Laguna (Albuquerque).....	.....	.....	180,000	180,000
Laguna withdrawals.....	.....	.....	13,586	13,586
Nambe.....	.....	.....	17,461	17,461
Picuris.....	.....	.....	13,530	13,530
Pojoaque.....	.....	.....	24,187	24,187
San Dia (Albuquerque).....	.....	.....	17,545	17,545
San Juan.....	.....	.....	24,767	24,767
San Felipe (Albuquerque).....	.....	.....	17,361	17,361
Santa Ana (Albuquerque).....	.....	.....	49,369	49,369
Santa Clara.....	.....	.....	92,398	92,398
Santo Domingo.....	.....	.....	17,515	17,515
Sta.....	.....	.....	17,393	17,393
San Idelfonso.....	.....	.....	17,361	17,361
Taos.....	.....	.....	17,471	17,471
Tesuque.....	.....	.....	215,040	215,040
Zuni.....	.....	.....	.....	.....

1 Includes 12,348 acres purchased from the Omaha Indians.

2 Executive orders 1910 and 1917.

TABLE 5.—Area of Indian lands June 30, 1917—Continued.

States and reservations.	Number allotments.	Area, in acres.		
		Allotted.	Unallotted.	Total.
New York.....			87,677	87,677
Allegany.....			30,469	30,469
Cattaraugus.....			21,680	21,680
Oil Spring.....			640	640
Oneida.....			350	350
Onondaga.....			6,100	6,100
St. Regis.....			14,640	14,640
Tonawanda.....			7,549	7,549
Tuscarora.....			6,249	6,249
North Carolina: Qualla.....			63,211	63,211
North Dakota.....	8,380	2,005,820	100,000	2,105,820
Devils Lake (Fort Totten).....	1,189	137,881		137,881
Fort Berthold.....	2,165	485,708	100,000	585,708
Standing Rock.....	4,700	1,388,411		1,388,411
Turtle Mountain.....	826	43,820		43,820
Oklahoma.....	116,701	10,548,888	462,702	20,011,890
Cherokee.....	40,193	4,346,203		4,346,203
Chickasaw.....	10,965	3,800,350	721	3,801,071
Choctaw.....	26,723	4,291,086	458,937	4,749,973
Creek.....	18,710	2,997,114	2,485	2,999,609
Seminole.....	3,118	869,635	162	869,797
Cherokee Outlet.....	62	4,949		4,949
Cheyenne and Arapaho.....	3,531	528,789		528,789
Iowa (See and Fox).....	108	8,605		8,605
Kansas (Kaw, now Ponca).....	247	99,644		99,644
Kickapoo (Shawnee).....	290	22,650		22,650
Kiowa, Comanche, and Apache.....	3,451	547,236		547,236
Modoc (Seneca).....	68	3,936		3,936
Oakland (Ponca).....	73	11,456		11,456
Ozage.....	2,330	1,465,350		1,465,350
Otoe.....	514	128,351		128,351
Ottawa (Seneca).....	180	12,965		12,965
Pawnee.....	820	112,701		112,701
Pecora (Seneca).....	218	43,334		43,334
Ponca.....	782	100,745	887	101,132
Potawatomi (Shawnee).....	2,109	291,736		291,736
Quapaw (Seneca).....	248	56,245		56,245
See and Fox.....	548	87,684		87,684
Seneca.....	435	41,813		41,813
Shawnee.....	117	12,745		12,745
Wichita (Kiowa).....	967	152,714		152,714
Wyandotte (Seneca).....	244	20,942		20,942
Oregon.....	4,263	508,657	1,209,349	1,718,006
Grande Ronde (Siletz).....	269	32,983		32,983
Klamath.....	1,351	208,279	812,707	1,020,986
Siletz.....	551	44,459		44,459
Umatilla.....	1,115	82,644	74,130	156,774
Warm Springs.....	967	140,292	323,612	463,904
South Dakota.....	26,989	6,190,827	503,010	6,693,837
Cheyenne River.....	3,493	961,685	249,145	1,210,830
Crow Creek and Old Winnebago.....	1,480	272,560	16,345	288,906
Lake Traverse (Sisseton).....	2,006	308,838		308,838
Lower Brule.....	868	201,991	37,520	239,511
Pine Ridge.....	8,062	2,325,378	300,000	2,625,378
Rosebud.....	8,487	1,851,612		1,851,612
Yankton.....	2,613	268,263		268,263
Utah.....	1,367	111,947	1,510,800	1,622,747
Goshute and Deep Creek.....			34,500	34,500
Navajo (see Arizona and New Mexico).....			600,000	600,000
Palute (Navajo).....			600,000	600,000
Shilwits.....			26,880	26,880
Skull Valley.....			80	80
Uintah Valley.....	777	39,620	249,340	288,960
Uncompahgre.....	800	72,327		72,327

TABLE 5.—Area of Indian lands June 30, 1917—Continued.

States and reservations.	Number of allotments.	Area, in acres.		
		Allotted.	Unallotted.	Total.
Washington.....	9,980	1,019,079	1,699,807	2,718,886
Chehalis (Cushman).....	36	3,799	.....	3,799
Columbia (Colville).....	35	22,618	.....	22,618
Colville.....	2,918	332,795	1,009,580	1,342,375
Hoh River (Neah Bay).....	.....	.....	640	640
Kalispel (Coeur d'Alene).....	.....	.....	4,029	4,029
Lummi (Tulalip).....	109	13,561	.....	13,561
Makah (Neah Bay).....	373	5,728	19,312	25,040
Muckleshoot (Cushman).....	43	5,491	.....	5,491
Nisqually (Cushman).....	30	4,717	.....	4,717
Ozette (Neah Bay).....	.....	.....	640	640
Port Madison (Tulalip).....	51	7,219	65	7,284
Puyallup (Cushman).....	167	17,493	.....	17,493
Quileute (Neah Bay).....	.....	.....	837	837
Quinalt (Taholah).....	690	84,990	168,533	223,543
Shoshone.....	.....	.....	335	335
Skokomish (Cushman).....	124	7,808	.....	7,808
Snohomish (Tulalip).....	184	22,166	324	22,490
Spokane.....	628	64,964	82,488	147,442
Squaxon Island (Cushman).....	23	1,494	.....	1,494
Swinomish (Tulalip).....	71	7,359	.....	7,359
Yakima.....	4,488	451,922	412,404	864,326
Wisconsin.....	4,420	287,089	296,524	583,613
Lac Courte Oreille (Hayward).....	881	68,910	540	69,450
Lac du Flambeau.....	600	45,756	24,424	70,180
La Pointe (Bad River).....	1,063	83,871	39,880	123,751
Menominee (Keshena).....	.....	.....	231,680	231,680
Oneida.....	1,504	65,466	.....	65,466
Red Cliff.....	205	14,166	.....	14,166
Stockbridge and Muncie (Keshena).....	167	8,920	.....	8,920
Wyoming: Wind River (Shoshone).....	2,397	245,058	584,940	829,996
Public domain.....	7,678	1,108,280	.....	1,108,280

TABLE 6.—General data for each Indian reservation, under what agency or school, tribes occupying or belonging to it, area not allotted or specially reserved, and authority for its establishment, to June 30, 1917.

Name of reservation and tribe.	Area (unallotted).	Treaties, laws, or other authorities relating to reserves.
ARIZONA.		
Camp McDowell..... (Under Salt River School.) Tribe: Mohave Apache.	Acres. 24,971	Executive order, Sept. 15, 1903; act of Apr. 21, 1904, vol. 33, p. 211. (See Ann. Rept. 1906, p. 98.)
Colorado River..... (Under Colorado River School.) Tribes: Chemehuevi, Ka-wia, Cocopa, ¹ Mohave.	236,180	Act of Mar. 3, 1885, vol. 13, p. 559; Executive orders, Nov. 22, 1873, Nov. 16, 1874, and May 15, 1876. (See sec. 25, Indian appropriation act, approved Apr. 21, 1904, vol. 33, p. 224.) Act Apr. 20, 1906 (36 Stat., 77); act Apr. 4, 1910 (36 Stat., 273); act Mar. 3, 1911 (36 Stat., 1063); act Aug. 24, 1912 (37 Stat., 523); Executive order, Nov. 22, 1915. 599 Indians allotted 5,990 acres.
Fort Apache..... Under Fort Apache School. Tribes: Chiricahua, Coyotero, Mimbreno, and Mogollon Apache.	1,681,920	Executive orders, Nov. 9, 1871, July 21, 1874, Apr. 27, 1876, Jan. 26 and Mar. 31, 1877; act of Feb. 20, 1883, vol. 27, p. 469; agreement made Feb. 25, 1890, approved by act of June 10, 1890, vol. 29, p. 358. (See act of June 7, 1897, vol. 30, p. 64.)
Fort Mojave..... (Under Fort Mojave School.) Tribe: Apache.	31,328	Executive orders, Dec. 1, 1910, and Feb. 2, 1911. Sec. 11, act June 25, 1910 (36 Stat., 855-858). (See 18579-1910.) Area original military reservation, 14,000 acres.
Gila Bend..... (Under Pima School.) Tribe: Papago.	10,231	Executive orders, Dec. 12, 1882, and Jan. 17, 1909. (See 4106, 1909.)
Gila River..... (Under Pima School.) Tribes: Maricopa and Pima.	371,422	Act of Feb. 28, 1859, vol. 11, p. 401; Executive orders, Aug. 11, 1876, Jan. 10, 1879, June 14, 1879, May 5, 1882, and Nov. 15, 1883; Mar. 22, May 8, July 31, 1911; Dec. 18, 1911; June 2, 1913; Aug. 27, 1914; Mar. 18, 1915, and July 19, 1916.

¹ Partly in California.² Outboundaries surveyed.³ Surveyed.⁴ Not on reservation.

TABLE 6.—General data for each Indian reservation, under what agency or school, tribes occupying or belonging to it, area not allotted or specially reserved, and authority for its establishment, to June 30, 1917—Continued.

Name of reservation and tribe.	Area (unallotted).	Treaties, laws, or other authorities relating to reserves.
ARIZONA—continued.		
Havasupai (Supai)..... (Under Havasupai School.) Tribe: Havasupai.	<i>Acres.</i> 1 518	Executive orders, June 8 and Nov. 22, 1880, and Mar. 31, 1882.
Hopi (Moqui)..... (Under Moqui School.) Tribe: Hopi (Moqui) and Navajo.	2,472,320	Executive order, Dec. 16, 1882. Act of Mar. 1, 1907 (34 Stat. L., 1021.) (See 45006-1910.)
Kaibab..... (Under Kaibab School.) Tribe: Kaibab and San Juan Paiute.	138,240	Secretary's withdrawal, Oct. 15, 1907. (See 73684-1907.) Executive order, June 11, 1913.
Navajo ¹ (Under Leupp, Navajo, Western Navajo, San Juan and Pueblo Bonito Schools.) Tribe: Navajo.	11,887,793	Treaty of June 1, 1868, vol. 15, p. 667, and Executive orders, Oct. 29, 1878, Jan. 6, 1880, two of May 17, 1884, and Nov. 19, 1892. 1,769,600 acres in Arizona and 967,680 acres in Utah were added to this reservation by Executive order of May 17, 1884, and 46,080 acres in New Mexico restored to public domain, but again reserved by Executive orders, Apr. 24, 1886, Jan. 8, 1900, and Nov. 14, 1901. By Executive orders of Mar. 10 and May 15, 1905, 61,523 acres were added to reservation and by Executive order of Nov. 9, 1907, as amended by Executive order of Jan. 28, 1908, 2,972,160 acres were added. 2,064 Indians have been allotted 328,963 acres under the act of Feb. 8, 1887 (24 Stats., 388), as amended. By Executive orders of Dec. 30, 1908, and Jan. 16, 1911, the surplus lands, approximately 1,641,180 acres, in that part of the extension in New Mexico restored to the public domain (See 35 Stat. L., 457 and 787.) (See 1277-9.) Act of May 27, 1902 (32 Stat., 264), and Mar. 3, 1913 (37 Stat., 1007), R. R. exchanges. Executive orders May 24, 1911, Feb. 17, 1912 (2), Feb. 10, 1913 (2), May 6, 1913, Dec. 1, 1913, July 23, 1914, and Feb. 19, 1915. Also 94,000 acres set aside temporarily for allotment by Executive order, May 7, 1917.
Papago..... (Under San Xavier School.) Tribe: Papago.	2,443,462	Executive order, July 1, 1874, and act of Aug. 5, 1882, vol. 22, p. 291. 41,606 acres allotted to 291 Indians, and 14 acres reserved for school site, the residue, 27,583 acres, unallotted. (See letter book 208, p. 408.) Executive orders, June 18, 1911, and May 28, Sept. 2, Oct. 8, and Dec. 5, 1912, Oct. 27, 1914, Jan. 14, 1916, and Feb. 1, 1917.
Salt River..... (Under Salt River School.) Tribe: Maricopa and Pima.	22,317	Executive orders, June 14, 1879, and Oct. 20, 1910; Sept. 23 and Oct. 23, 1911. (See 25731-1910.) (See Senate Doc. 90, 58th Cong., 2d sess.) 804 Indians allotted 24,403 acres under general allotment act.
San Carlos..... (Under San Carlos School.) Tribe: Arivaipa, Chillon, Chiricahua, Coyotero, Mimbreno, Mogollon, Mohave, Pinal, San Carlos, Tonto, and Yuma Apache.	1 1,834,240	Executive orders, Nov. 9, 1871, Dec. 14, 1872, Aug. 5, 1873, July 21, 1874, Apr. 27 and Oct. 30, 1876, Jan. 26 and Mar. 31, 1877; act of Feb. 20, 1883, vol. 27, p. 469; agreement made Feb. 25, 1886, approved by act of June 10, 1896, vol. 29, p. 358. (For fuller text see Misc. Indian Doc., vol. 29, p. 35910.) (See act of June 7, 1897, vol. 30, p. 64; act of Mar. 2, 1901, vol. 31, p. 952.) Executive order of Dec. 22, 1902.
Walapai..... (Under Truxton Cañon School.) Tribe: Walapai.	730,940	Executive orders, Jan. 4, 1883, Dec. 22, 1888, May 14, 1900, June 2, 1911, May 29, 1912, and July 18, 1913.
Total.....	21,885,882	
CALIFORNIA.		
Camp or Fort Independence...	260	Executive orders, Oct. 28, 1915, and Apr. 29, 1916.
Cold Springs.....	160	Executive order, Nov. 10, 1914.
Colony or Nevada.....	75	Executive order, May 6, 1913.
Digger..... (Under a farmer.) Tribe: Digger.	370	Act of Mar. 3, 1883 (27 Stats., 612), provides for purchase of 330 acres; not allotted. 40 acres were reserved by order of the Secretary of the Interior, Oct. 23, 1906, for Digger Indians. (See 46897-1907, 71861-1908, 39245-1909.)
Gouldville band.....	160	Secretary's withdrawal for wood lot. (See 22206-1909.)
Hoop Valley..... (Under Hoopa Valley School.) Tribe: Hunsatung, Hupa, Klamath River, Mikut, Redwood, Salas, Sermalton, and Tshtanatan.	1 99,061	Act of Apr. 2, 1884, vol. 13, p. 39; Executive orders, June 23, 1876, and Oct. 16, 1891. There have been allotted to 639 Indians 39,143.38 acres, reserved to 3 villages 68.74 acres and opened to settlement under act of June 17, 1892 (27 Stats., p. 62), 15,096.11 acres of land (formerly Klamath River Reservation). (Letter book 263, p. 96; 382, p. 480; 383, p. 170.)

¹ Outboundaries surveyed.² Partly in New Mexico. (See Table 5.)³ Partly surveyed.

TABLE 6.—General data for each Indian reservation, under what agency or school, tribes occupying or belonging to it, area not allotted or specially reserved, and authority for its establishment, to June 30, 1917—Continued.

Name of reservation and tribe.	Area (unallotted).	Treaties, laws, or other authorities relating to reserves.
CALIFORNIA—continued.		
Mission (23 reserves).....	<i>Acres.</i> 181,844	Executive orders, Jan. 31, 1870, Dec. 27, 1875, May 15, 1876, May 3, Aug. 25, Sept. 25, 1877, Jan. 17, 1880, Mar. 2, Mar. 9, 1881, June 27, July 24, 1882, Feb. 5, June 19, 1883, Jan. 25, Mar. 22, 1886, Jan. 29, Mar. 14, 1887, and May 6, 1889. 270.24 acres allotted to 17 Indians and for church and cemetery purposes on Sycuan Reserve (letter book 303, p. 297), and 1,259.47 acres allotted to 85 Temecula Indians, 2.70 acres reserved for school purposes (letter book 351, p. 312). Executive order, Dec. 29, 1891. Proclamations of President of Apr. 16, 1901, vol. 32, p. 1970, and May 29, 1902, vol. 32, p. 2005; act of Feb. 11, 1903, vol. 32, p. 822. 174,936.73 acres patented by the Government to various bands under acts of Jan. 12, 1891 (26 Stat. L., 712), and Mar. 1, 1907 (34 Stat. L., 1015-1022). (See misc. tract book 36, and President's proclamation, Aug. 31, 1915.)
Chuckchansies.....	160	Executive orders, Apr. 24, 1912, and Aug. 14, 1914.
Los Coyotes.....	3,840	Executive order, Apr. 13, 1914.
Morongo.....		Proclamation of Nov. 12, 1913, partly canceling Executive order withdrawal.
National Forests (Cal.):		
Cleveland National Forest.....		119.92 acres allotted to one Indian (76835-1911).
Sequoia National Forest.....		80 acres allotted to one Indian (68231-1916).
Sierra National Forest.....		110 acres allotted to two Indians (95945-1915 and 129405-1914).
Pakute.....	175,806	Executive orders, Mar. 11, 1912, May 9, 1912, Sept. 7, 1912, Sept. 16, 1912, Feb. 14, 1913, and July 22, 1915.
Pala (Formerly Warner's Ranch Indians.)		119.99 acres allotted to 15 Indians (letter book 308, p. 57). 162 allotments of approximately 2 acres of irrigable land and 6 acres of grazing land approved and patented under act of Feb. 8, 1887 (24 Stat. L., 338), as amended. Lands reserved under authority of acts of Jan. 12, 1891 (26 Stat. L., 712), and Mar. 1, 1907 (34 Stat. L., 1022), and bought under act of May 3, 1902 (32 Stat. L., 257). See authority 7971 and letter book 530, p. 113. Deed recorded in Miscellaneous Record Book No. 5, p. 193.
Round Valley (Under Round Valley School.)		Acts of Apr. 8, 1864, vol. 13, p. 39, and Mar. 2, 1873, vol. 17, p. 634; Executive orders, Mar. 30, 1870, Apr. 8, 1873, May 18, 1875, and July 26, 1876; act of Oct. 1, 1880, vol. 26, p. 653. 42,105.56 acres allotted to 1,084 Indians, 1,110 acres reserved for school and agency purposes (73068-1907, letter books 298, p. 17, and 305, p. 260). (See act of Feb. 8, 1905, providing for a reduction of area of reservation, vol. 33, p. 706.) 36,692.23 acres additional allotments made to 619 Indians and 740 acres reserved for school purposes.
Tule River (Under Tule River School.)	43,551	Executive orders, Jan. 9 and Oct. 3, 1873, and Aug. 3, 1878.
Tribe: Kawi, ¹ Kings River, Moache, Tehon, Tule, and Wimmunni. ²		
Yuma (Under Fort Yuma School.)	30,949	Executive order, Jan. 9, 1894; agreement, Dec. 4, 1893, ratified by act of Aug. 15, 1894, vol. 28, p. 332. (See sec. 25, Indian appropriation act, approved Apr. 21, 1904, vol. 33, p. 224.) 7,758.54 acres irrigable land opened under act of June 17, 1902 (32 Stat., 388), act Mar. 3, 1911 (36 Stat., 1063). 8,110 acres allotted to 811 Indians.
Tribe: Yuma-Apache.		
Total.....	441,826	
COLORADO.		
Ute (Under Navajo Springs and Southern Ute Schools.)	396,143	Treaties of Oct. 7, 1863, vol. 13, p. 673, and Mar. 2, 1868, vol. 15, p. 619, act of Apr. 29, 1874, vol. 18, p. 36; Executive orders, Nov. 22, 1875, Aug. 17, 1876, Feb. 7, 1879, and Aug. 4, 1882, and act of Congress approved June 15, 1880, vol. 21, p. 199, and July 28, 1882, vol. 22, p. 178, May 14, 1884, vol. 23, p. 22, Aug. 15, 1894, vol. 28, p. 337, Feb. 20, 1895, vol. 28, p. 677. 72,631 acres allotted to 371 Indians and 360 acres reserved for use of Government (letter book 321, p. 36); 7,360.32 acres allotted to 39 Indians (letter book 331, p. 395). 523,079 acres opened to settlement by President's proclamation dated Apr. 13, 1899 (31 Stat., 1947). The residue, 375,960 acres, retained as a reservation for the Wimmunche Utes. Act June 30, 1913 (33 Stat., 82), exchange of lands with Indians. Executive order, Nov. 12, 1915.
Tribe: Capote, Moache, and Wimmunche Ute.		
Total.....	396,143	

¹ Partly in Nevada. ² Outboundaries surveyed. ³ Not on reservation. ⁴ Partly in New Mexico.

TABLE 6.—General data for each Indian reservation, under what agency or school, tribes occupying or belonging to it, area not allotted or specially reserved, and authority for its establishment, to June 30, 1917—Continued.

Name of reservation and tribe.	Area (unallotted).	Treaties, laws, or other authorities relating to reserves.
FLORIDA.		
Seminole..... (Under special agent.)	Acres. 126,741	Acts Aug. 15, 1894 (28 Stat., 308), Mar. 2, 1895 (28 Stat., 892), June 10, 1896 (29 Stat., 337), June 7, 1897 (30 Stat., 78), Mar. 1, 1899 (30 Stat., 938), June 6, 1900 (31 Stat., 302), Apr. 4, 1910 (36 Stat., 274). 23,061.72 acres purchased for Seminole Indians in Florida under acts mentioned (see Annual Report for 1900, p. 101). 3,680 acres reserved by Executive order of June 28, 1911. (See 20817-1909.)
Total.....	26,741	
IDAHO.		
Coeur d'Alene..... (Under Coeur d'Alene Agency.) Tribes: Coeur d'Alene, Kutenai, ¹ Pend d'Oreille, ¹ and Spokane.		Executive orders June 14, 1867, and Nov. 8, 1873; agreements made Mar. 26, 1887, and Sept. 9, 1889, and confirmed in Indian appropriation act approved Mar. 3, 1891, vol. 26, pp. 1026, 1029. Agreement, Feb. 7, 1894, ratified by act of Aug. 15, 1894, vol. 28, p. 322. 638 Indians have been allotted 104,077 acres and 1,906.99 acres have been reserved for agency, school, and church purposes and for mill sites. (See 89950-1908, and acts of June 21, 1906 (34 Stat. L., 325-355), Mar. 3, 1891 (26 Stat. L., 1026-1029), Aug. 15, 1894 (28 Stat. L., 322), Mar. 27, 1908 (35 Stat. L., 56), Apr. 30, 1909 (35 Stat. L., 78). (President's proclamation issued May 22, 1909, opening 224,210 acres surplus lands to settlement. (37 L. D., 698.)
Fort Hall..... (Under Fort Hall School.) Tribes: Bannock and Shoshoni.	21,263	Treaty of July 3, 1888 vol. 15, p. 673; Executive orders, June 14, 1867, and July 30, 1869; agreement with Indians made July 18, 1881, and approved by Congress July 3, 1882, vol. 22, p. 148; agreement of May 27, 1887, ratified by acts of Sept. 1 1888, vol. 25, p. 452, Feb. 23, 1889, vol. 25, p. 687, and Mar. 3, 1891, vol. 26, p. 1011. Agreement made Feb. 5, 1898 ratified by act of June 6, 1900, vol. 31, p. 672, ceding 416,000 acres, of which 6,298.72 acres have been allotted to 79 Indians (see letter book 527, p. 478); remainder of ceded tract opened by settlement June 17, 1902 (President's proclamation of May 7, 1902, vol. 32, p. 1997) act of Mar. 30, 1904, vol. 33, p. 153, act of Mar. 3, 1911 (36 Stat., 1064); 1,863 allotments, covering 338,909 acres, approved Oct. 28, 1914 (37106-13).
Lapwai..... (Under Fort Lapwai School.) Tribe: Nez Percé.	34,190	Treaty of June 9, 1863, vol. 14, p. 647; agreement, May 1, 1898, ratified by act of Aug. 15, 1894 vol. 28, p. 326. 178,812 acres allotted to 1,876 Indians, 2,170.47 acres reserved for agency, school, mission, and cemetery purposes, and 32,020 acres of timberland reserved for the tribe; the remainder restored to public settlement. (President's proclamation, Nov. 8, 1895, 29 Stat., 873.)
Lemhi.....		Unratified treaty of Sept. 24, 1868, and Executive order, Feb. 12, 1875; agreement of May 14, 1880, ratified by act of Feb. 23, 1890, vol. 25, p. 687. (See 34 Stat. L., 335, and agreement executed Dec. 28, 1906, approved by President Jan. 27, 1906.) Act of June 21, 1906 (34 Stat., 334), about 64,000 acres opened in 1909. (See 36808-1909.)
Total.....	55,453	
IOWA.		
Sauk and Fox..... (Under Sac and Fox Agency.) Tribes: Potawatomi, Sauk and Fox of the Mississippi and Winnebago.	3,480	By purchase. (See act of Mar. 2, 1867 vol. 14, p. 507.) Deeds 1867, 1868, 1867, 1868, 1869, 1876, 1880, 1882, 1883, 1888, June July, and Oct., 1892-1896. (See act of Feb. 13, 1891, vol. 26, p. 749.) (See Ann. Repts., 1891, p. 681; 1898, p. 81.) Deeds recorded, vol. 6. (See 95856-1907.)
Total.....	3,480	
KANSAS.		
Chippewa and Muncie..... (Under Potawatomi School.) Tribes: Chippewa and Muncie.		Treaty of July 16, 1869, vol. 12, p. 1105. 4,195.31 acres allotted to 100 Indians; the residue, 200 acres, allotted for missionary and school purposes. Patents issued to allottees; balance of allotments sold and proceeds paid to heirs. (See ninth section of act of June 7, 1867, vol. 30, p. 92; L. B., 332, p. 63.)

¹ Surveyed.² Not on reservation.

TABLE 6.—General data for each Indian reservation, under what agency or school, tribes occupying or belonging to it, area not allotted or specially reserved, and authority for its establishment, to June 30, 1917—Continued.

Name of reservation and tribe.	Area (unallotted).	Treaties, laws, or other authorities relating to reserves.
KANSAS—continued.		
Iowa ¹ (Under Kickapoo School.) Tribe: Iowa.	Acres.	Treaties of May 17, 1854, vol. 10, p. 1069, and of Mar. 6, 1861, vol. 12, p. 1171. 11,768.77 acres of land allotted to 143 Indians; 162 acres reserved for school and cemetery purposes. (Letter book 266, p. 89.) Acts Mar. 3, 1886 (23 Stat., 353), and Jan. 26, 1887 (24 Stat., 367).
Kickapoo..... (Under Kickapoo School.) Tribe: Kickapoo.		Treaty of June 28, 1862, vol. 13, p. 623. 27,691.27 acres allotted to 351 Indians; 245 acres reserved for church and school; the residue, 396.87 acres, unallotted (letter books 304, p. 489, and 772, p. 54). (Acts of Aug. 4, 1896 (24 Stat., 219), Feb. 28, 1899, vol. 30, p. 909, and Mar. 3, 1903, vol. 32, p. 1007.)
Potawatomi..... (Under Potawatomi School.) Tribe: Prairie Band of Potawatomi.		Treaties of June 6, 1846, vol. 9, p. 883; of Nov. 15, 1861, vol. 12, p. 1191; treaty of relinquishment, Feb. 27, 1867, vol. 15, p. 531. 220,785 acres allotted to 3,363 Indians; 319 acres reserved for school and agency and 1 acre for church. (Acts of Feb. 28, 1899, vol. 30, p. 909, and Mar. 3, 1903, vol. 32, p. 1007.) 980 acres surplus tribal land sold under act Feb. 28, 1899.
Sank and Fox ¹ (Under Kickapoo School.) Tribe: Sank and Fox of the Missouri.		Treaties of May 18, 1854, vol. 10, p. 1074, and of Mar. 6, 1861, vol. 12, p. 1171; acts of June 10, 1872, vol. 17, p. 391, and Aug. 15, 1876, vol. 19, p. 208. 2,843.97 acres in Kansas 4,194.33 acres in Nebraska, aggregating 7,038.30 acres, allotted to 84 Indians, and under act June 21, 1908 (34 Stat., 324-349), 990.91 acres were allotted to 37 Indians, leaving 57 acres unallotted. (Letter books 333, p. 361; 383, p. 37; and 512, p. 110.)
Total.....		
MICHIGAN.		
Isabella ¹ Tribe: Chippewa of Saginaw, Swan Creek, and Black River.	191	Executive order, May 14, 1855; treaties of Aug. 2, 1855, vol. 11, p. 633, and of Oct. 18, 1864, vol. 14, p. 657. 98,266 acres, allotted to 1,943 Indians.
L'Anse..... (Under special agent.) Tribe: L'Anse and Vieux Desert Bands of Chippewa of Lake Superior.		Treaty of Sept. 30, 1854, vol. 10, p. 1109. 52,121 acres allotted to 668 Indians. Payment for lands in sec. 16, see 93879-1907. Unappropriated tracts, see 10293-1915.
Ontonagon..... (Under special agent.) Tribe: Ontonagon Band of Chippewa of Lake Superior.		Sixth clause, second article, treaty of Sept. 30, 1854, vol. 10, p. 1109; Executive order, Sept. 26, 1855. 2,561.35 acres allotted to 35 Indians.
Ottawa and Chippewa.....		Treaty July 31, 1855. (11 Stat., 621.) 120,470 acres allotted to 1,318 Indians.
Total.....	191	
MINNESOTA.		
Bois Fort..... (Under Nett Lake School.) Tribe: Bois Fort Chippewa.		Treaty of Apr. 7, 1866, vol. 14, p. 765; act of Jan. 14, 1889, vol. 25, p. 642. (See H. Ex. Doc. No. 247, 51st Cong., 1st sess., p. 63.) 56,467.20 acres allotted to 721 Indians and 434.63 acres reserved for agency, etc., purposes. (L. B. 269,382); residue, 51,863 acres, opened to public settlement.
Deer Creek..... (Under Nett Lake School.) Tribe: Bois Fort Chippewa.		Executive order, June 30, 1883; act of Jan. 14, 1889, vol. 25, p. 642. (See H. Ex. Doc. No. 247, 51st Cong., 1st sess., p. 63.) 295.55 acres allotted to 4 Indians; residue, 22,744 acres, opened to public settlement. (Executive order of Dec. 21, 1858.)
Fond du Lac..... (Under Fond du Lac School.) Tribe: Fond du Lac Band of Chippewa of Lake Superior.		Treaty of Sept. 30, 1854, vol. 10, p. 1109; act of May 26, 1872, vol. 17, p. 190. 37,121 acres allotted to 593 Indians; act of Jan. 14, 1889, vol. 25, p. 642. (See H. Ex. Doc. No. 247, 51st Cong., 1st sess., p. 60.) The residue, 76,837 acres, restored to settlement. Agreement of Nov. 21, 1899. (See act of Jan. 14, 1889, vol. 25, p. 642.) Act June 30, 1913 (Public No. 4), and Executive order, Mar. 4, 1915.
Grand Portage (Pigeon River). (Under Grand Portage agency.) Tribe: Grand Portage Band of Chippewa of Lake Superior.		Treaty of Sept. 30, 1854, vol. 10, p. 1109; act of Jan. 14, 1889, vol. 25, p. 642. (See H. Ex. Doc. No. 247, 51st Cong., 1st sess., p. 59.) 24,191.81 acres allotted to 304 Indians; 206.24 acres reserved for agency and wood purposes; residue, 16,041.97 acres, opened to public settlement. Executive order, Mar. 21, 1917, setting aside two small unsurveyed islands for reservation purposes.

¹ In Kansas and Nebraska.

² Agency abolished June 30, 1899.

TABLE 6.—General data for each Indian reservation, under what agency or school, tribes occupying or belonging to it, area not allotted or specially reserved, and authority for its establishment, to June 30, 1917—Continued.

Name of reservation and tribe.	Area (unallotted).	Treaties, laws, or other authorities relating to reserves.
MINNESOTA—continued.		
Leech Lake..... (Under Leech Lake Agency.) Tribes: Cass Lake, Pillager, and Lake Winibigoshish Bands of Chippewa.	Acres.	Treaty of Feb. 22, 1855, vol. 10, p. 1165; Executive orders, Nov. 4, 1873, and May 26, 1874; act of Jan. 14, 1889, vol. 25, p. 642. (See H. Ex. Doc. No. 247, 51st Cong., 1st sess., p. 49.) 48,446 acres allotted to 630 Indians and 321.00 acres reserved for agency and school purposes. (Act of June 27, 1902, vol. 32, p. 402.) Minnesota National Forest act, May 23, 1908 (35 Stat., 268). Executive order Feb. 16, 1911.
Mdewakanton..... (Under Birch Cooley School.) Tribe: Mdewakanton Sioux.		By purchase. (See acts of July 4, 1854, Mar. 3, 1885, May 15, 1886, June 29, 1888 (25 Stat., 228); Mar. 2, 1889 (25 Stat., 992), and Aug. 19, 1890 (26 Stat., 349). 339.70 acres deeded to 47 Indians; 12,242.76 acres allotted to 88 Indians and held in trust by the United States, 8.90 acres reserved for school. (See Ann. Rpt., 1891, pp. 111 and 179, and schedule approved Nov. 21, 1904.) Act Mar. 4, 1917 (39 Stat. L., 1195).
Mille Lac..... (Under White Earth School.) Tribe: Mille Lac and Snake River Bands of Chippewa.		Treaties of Feb. 22, 1855, vol. 10, p. 1165, and article 12, of May 7, 1864, vol. 13, pp. 693, 695; act of Jan. 14, 1889, vol. 25, p. 642. (See H. Ex. Doc. No. 247, 51st Cong., 1st sess., p. 45.) Joint resolution (No. 5), Dec. 19, 1893, vol. 28, p. 676, and joint resolution (No. 40) approved May 17, 1898, vol. 30, p. 745. (See Ann. Rept. 1890, pp. 38-43.) Purchase of land act of Aug. 1, 1914 (38 Stat., 591).
Red Lake..... (Under Red Lake School.) Tribe: Red Lake and Pembina Chippewa.	543,528	Treaty of Oct. 2, 1863, vol. 13, p. 667; act of Jan. 14, 1889, vol. 25, p. 642. (See agreement July 8, 1889, H. Ex. Doc. No. 247, 51st Cong., 1st sess., pp. 27 and 32), and Executive order, Nov. 21, 1892. Act of Mar. 3, 1903, vol. 32, p. 1009, and act of Feb. 20, 1904, ratifying agreement made Mar. 10, 1902, vol. 33, p. 46, for sale of 256,152 acres. Act of Feb. 8, 1905, vol. 33, p. 708, granting 320 acres as right of way for the Minneapolis, Red Lake & Manitoba Ry. Co. Executive order, Feb. 16, 1911.
Vermillion Lake..... (Under Vermillion Lake School.) Tribe: Bois Fort Chippewa.	1,080	Executive order, Dec. 20, 1881, act of Jan. 14, 1889, vol. 25, p. 642.
White Earth..... (Under White Earth School.) Tribes: Chippewa of the Mississippi, Pembina, and Pillager Chippewa.	9,290	Treaty of Mar. 19, 1867, vol. 16, p. 719; Executive orders, Mar. 18, 1879, and July 13, 1883, act of Jan. 14, 1889, vol. 25, p. 642. (See agreement July 30, 1889, H. Ex. Doc. No. 247, 51st Cong., 1st sess., pp. 34 and 36.) Under act of Jan. 14, 1889 (25 Stat., 642), 428,401.06 acres have been allotted to 5,152 Indians, and 1,899.61 acres reserved for agency, school, and religious purposes and under act of Apr. 28, 1904 (33 Stat., 539), 246,956.13 acres have been allotted to 2,816 Mississippi and Otter Tail Pillager Chippewa, being additional allotments to a part of the allottees under act of Jan. 14, 1889, leaving unallotted and unreserved 9,290 acres. Act June 21, 1906 (34 Stat., 333.)
White Oak Point and Chippewa..... (Under Leech Lake Agency.) Tribes: Lake Winibigoshish and Pillager Bands of Chippewa and White Oak Point Band of Mississippi Chippewa.		Treaties of Feb. 22, 1855, vol. 10, p. 1165, and of Mar. 19, 1867, vol. 16, p. 719; Executive orders, Oct. 29, 1873, and May 26, 1874; act of Jan. 14, 1889, vol. 25, p. 742. (See H. Ex. Doc. No. 247, 51st Cong., 1st sess., pp. 42, 49.) 64,733 acres allotted to 826 Indians; the residue opened to public settlement; 240 acres reserved for ball park. (See 289-1906.)
Total.....	553,898	
MONTANA.		
Blackfeet..... (Under Blackfeet School.) Tribes: Blackfeet, Blood, and Piegan.	1,491,805	Treaty of Oct. 17, 1855, vol. 11, p. 687; unratified treaties of July 18, 1866, and of July 13, and 15 and Sept. 1, 1868; Executive orders, July 8, 1873, and Aug. 19, 1874; act of Apr. 15, 1874, vol. 18, p. 28; Executive orders, Apr. 13, 1875, and July 13, 1880, and agreement made Feb. 11, 1887, approved by Congress, May 1, 1888, vol. 26, p. 129; agreement made Sept. 24, 1895, approved by act of June 10, 1896, vol. 29, p. 353; act of Feb. 27, 1905, confirming grant of 833.11 acres of land and 120 acres of unsurveyed land. (See vol. 33, p. 816.) Act of Mar. 1, 1907 (34 Stat., 1035). Seven Indians allotted 2,220 acres. 44,240.07 acres timber reserved. (See 4021-1913.)

¹ Outboundaries surveyed.

TABLE 6.—General data for each Indian reservation, under what agency or school, tribes occupying or belonging to it, area not allotted or specially reserved, and authority for its establishment, to June 30, 1917—Continued.

Name of reservation and tribe.	Area (unallotted).	Treaties, laws, or other authorities relating to reserves.
MONTANA—continued.		
Crow..... (Under Crow School.) Tribes: Mountain and River Crow.	^{Acres.} 1,832,269	Treaty of May 7, 1868, vol. 15, p. 649; agreement made June 12, 1880, and approved by Congress Apr. 11, 1882, vol. 22, p. 42, and agreement made Aug. 22, 1881, approved by Congress July 10, 1882, vol. 22, p. 157; Executive orders, Oct. 20, 1875, Mar. 8, 1876, Dec. 7, 1886; agreement made Dec. 8, 1890; ratified and confirmed in Indian appropriation act approved Mar. 3, 1891, vol. 26, pp. 1039-1040; agreement made Aug. 27, 1892. (See Ann. Rept., 1892, p. 748; also President's proclamation, Oct. 15, 1892, vol. 27, p. 1034.) Act of Apr. 27, 1904, vol. 33, p. 352, to amend and ratify agreement of Aug. 14, 1890. Under act Feb. 8, 1887 (24 Stat., 388), and act Feb. 28, 1891 (26 Stat., 794), and Executive order, June 8, 1901 (modifying Executive order of Mar. 25, 1901), 482,424 acres have been allotted to 2,452 Indians, and 1,822.61 acres reserved for administration, church, and cemetery purposes, leaving unallotted and unreserved 1,832,269 acres; 14,711.96 acres on ceded part have been allotted to 81 Indians. (See L. B. 743, p. 50; 852, p. 160, and 956, p. 416.) 37 Indians (Schedule A) have been allotted 7,429.55 acres under acts of Apr. 11, 1882 (22 Stat., 42), Feb. 8, 1887 (24 Stat., 388), and amendments thereto. President's proclamation, May 24, 1906 (34 Stat., 3200).
Fort Belknap..... (Under Fort Belknap School.) Tribes: Grosventre and Assiniboin.	497,900	Treaty of Oct. 17, 1855, vol. 11, p. 657; unratified treaties of July 18, 1866, and of July 13 and 15 and Sept. 1, 1868; Executive orders, July 5, 1873, and Aug. 19, 1874; act of Apr. 15, 1874, vol. 18, p. 28; Executive orders, Apr. 13, 1875, and July 13, 1880, and agreement made Jan. 21, 1887, approved by Congress May 1, 1888, vol. 25, p. 124; agreement made, Oct. 9, 1895, approved by act of June 10, 1896, vol. 29, p. 350.
Fort Peck..... (Under Fort Peck School.) Tribes: Assiniboin, Brulé, Santee, Teton, Hunkpapa, and Yanktonai Sioux.		Treaty of Oct. 17, 1855, vol. 11, p. 657; unratified treaties of July 18, 1866, and of July 13, and 15 and of Sept. 1, 1868; Executive orders, July 5, 1873, and Aug. 19, 1874; act of Apr. 15, 1874, vol. 18, p. 28; Executive orders, Apr. 13, 1875, and July 13, 1880; and agreement made Dec. 28, 1886, approved by Congress May 1, 1888, vol. 25, p. 113, act May 30, 1908 (35 Stat., 558), 2,032 Indians allotted 724,695.77 acres; 1,225,849 acres surplus land opened to settlement and entry by President's proclamation July 25, 1913. (See 42 L. D., 264.) 1,032.84 acres reserved for town site, religious, and administrative purposes. Act. Aug. 1, 1914 (38 Stat. 593), allotments to children. Act. Feb. 26, 1917 (Pub. 355). Sale to Great Northern R. R., and President's proclamation Mar. 21, 1917, rel. homestead entries on lands classified as coal.
Flathead..... (Under Flathead School.) Tribes: Bitter Root, Carlisle Band, Flathead, Kutenai, Lower Kallispel, and Pend d'Oreille.		Treaty of July 16, 1855, vol. 12, p. 975. Under acts of Apr. 23, 1904 (33 Stats., 302), Feb. 8, 1887 (24 Stats., 388), and Feb. 28, 1891 (26 Stats., 794), 2,431 Indians have been allotted 237,113 acres, and under act of Apr. 23, 1904, 2,524.70 acres have been reserved for tribal uses, and under act of Apr. 23, 1904, as amended by act of Mar. 3, 1906 (33 Stats., 1049-1050), 6,774.92 acres have been reserved for agency purposes, 18,521.35 acres reserved for Bison Range under acts of May 23, 1908 (35 Stat. L., 267), and Mar. 4, 1909 (35 Stats., 927). See 61019-1908. May 22, 1909, proclamation issued by President opening surplus lands. Act Mar. 3, 1909 (35 Stats. 796). 45,714 acres reserved for power and reservoir sites, act Apr. 12, 1910 (36 Stats., 863). Executive order Jan. 14, 1913. Act June 25, 1910 (36 Stats., 833).
Northern Cheyenne..... Under Tongue River School.) Tribe: Northern Cheyenne.	499,500	Executive orders, Nov. 26, 1884, and Mar. 19, 1900, act of Mar. 3, 1908, vol. 32, p. 1000.
Rocky Boy.....	56,068	Part of Fort Assiniboin abandoned military reservation. Reserved by act Sept. 7, 1916 (39 Stat. 739), amending act of Feb. 11, 1915 (38 Stat. 807).
Total.....	4,367,212	

* Outboundaries surveyed; partly surveyed.

* Surveyed.

* Partly surveyed.

TABLE 6.—General data for each Indian reservation, under what agency or school, tribes occupying or belonging to it, area not allotted or specially reserved, and authority for its establishment, to June 30, 1917—Continued.

Name of reservation and tribe.	Area (unallotted).	Treaties, laws, or other authorities relating to reserves.
NEBRASKA.		
Niobrara. (Under Santee Agency.) Tribe: Santee Sioux.	Acres.	Act of Mar. 3, 1863, vol. 12, p. 819, 4th paragraph, art. 6; treaty of Apr. 29, 1868, vol. 15, p. 637; Executive orders, Feb. 27, July 20, 1866, Nov. 16, 1867, Aug. 31, 1869, Dec. 31, 1873, and Feb. 9, 1885. 33,515.92 acres selected as homesteads, 38,951.71 acres selected as allotments, and 1,087 acres selected for agency, school, and mission purposes; unratified agreement of Oct. 17, 1882. (For modification, see sundry civil appropriation act approved Mar. 3, 1883, vol. 22, p. 624. For text, see misc. Indian doc., vol. 14, p. 305. Act of Apr. 30, 1888, vol. 25, p. 94, not accepted. Executive order Apr. 29, 1916.)
Omaha. (Under Winnebago Agency.) Tribe: Omaha.	4,420	Treaty of Mar. 16, 1854, vol. 10, p. 1043; selection by Indians with President's approval, May 11, 1855; treaty of Mar. 6, 1865, vol. 14, p. 667; acts of June 10, 1872, vol. 17, p. 391, and of June 22, 1874, vol. 18, p. 170; deed to Winnebago Indians, dated July 31, 1874; act of Aug. 7, 1882, vol. 22, p. 341; act of Mar. 3, 1893 (27 Stats., p. 612); 130,602 acres allotted to 1,460 Indians; the residue, 4,420 acres, unallotted; act May 6, 1910 (36 Stats., 348), taxation; act May 11, 1912 (37 Stats., 111), sale of surplus land.
Ponca. (Under Santee Agency.) Tribe: Ponca.		Treaty of Mar. 12, 1858, vol. 12, p. 997, and supplemental treaty, Mar. 10, 1865, vol. 14, p. 675; act of Mar. 2, 1889, sec. 13, vol. 25, p. 892. 27,236 acres allotted to 168 Indians; 160 acres reserved and occupied by agency and school buildings. (See letter book 245, p. 339; also, President's proclamation, Oct. 23, 1890, vol. 26, p. 1559.)
Sioux (additional) (Under Pine Ridge School.) Tribe: Oglala Sioux.	640	Executive order, Jan. 24, 1882.
Winnebago. (Under Winnebago Agency.) Tribe: Winnebago.	1,098	Act of Feb. 21, 1863, vol. 12, p. 658; treaty of Mar. 8, 1866, vol. 14, p. 671; act of June 22, 1874, vol. 18, p. 170; deed from Omaha Indians, dated July 31, 1874. (See vol. 6, Indian deeds, p. 215.) 122,374.20 acres allotted to 1,559 Indians; 490 acres reserved for agency, etc.; 610.10 acres sold; act July 4, 1898; the residue, 1,098 acres, unallotted; act May 6, 1910 (36 Stats., 348) taxation.
Total.....	6,158	
NEVADA.		
Duck Valley. (Under Western Shoshone School.) Tribe: Paiute and Western Shoshoni.	1,321,920	Executive orders, Apr. 16, 1877, May 4, 1889, and July 1, 1910.
Mojave River. (Under Mojave River School.) Tribe: Chemahuevi, Kabbah, Pawpitt, Paiute, and Shivwits.	528	Executive orders, Mar. 12, 1873, and Feb. 12, 1874; act of Mar. 12, 1875, vol. 15, p. 445; selection approved by Secretary of the Interior, July 3, 1875; Executive orders of June 23, 1875, July 3, 1875, July 31, 1903, Oct. 23, 1912, and Nov. 26, 1912. 604.52 acres of irrigable land allotted to 117 Indians under general allotment act.
Painte. (Under Fallon School.)	960	7½ sections (4,640 acres) reserved under second form with drawal, reclamation act, June 17, 1902 (32 Stats., 888), for reallotment to Indians; 3,730 acres have been allotted to 369 Paiute Indians and 10 acres reserved for school purposes (see 78082-1907); 960 acres unallotted and unreserved.
Paiute and Shoshone scattered bands.	120	Executive order, Sept. 16, 1912, setting aside 120 acres for allotment purposes.
Pyramid Lake. (Under Nevada School.) Tribe: Paiute.	322,000	Executive order, Mar. 23, 1874; act July 1, 1898 (30 Stats., 594). (See sec. 26, Indian appropriation act approved Apr. 21, 1904, vol. 23, p. 225.) Executive order Sept. 4, 1913, creating bird reserve out of Anaho Island.
Summit Lake, Paiute and Shoshone.	5,026	Executive order, Jan. 11, 1913, withdrawing from settlement for use of Paiute-Shoshone 5,025.96 acres.
Walker River. (Under Walker River School.) Tribe: Paiute.	41,204	Executive order, Mar. 19, 1874; joint resolution of June 19, 1902, vol. 22, p. 744; act of May 27, 1902 (32 Stats., pp. 245, 260); act of Mar. 3, 1908, vol. 32, pp. 962-997; act of June 21, 1906, vol. 34, p. 325; proclamation of President, Sept. 26, 1906, opening ceded part to settlement. It contained 268,005.84 acres. Allotted to 496 Indians 9,878 acres; reserved for agency and school, 80 acres; reserved for cemetery, 40 acres; reserved for grazing, 37,848.29 acres; reserved for timber, 3,355.62 acres; reserved for church purposes, 160 acres. (L. B., 885, p. 187.)
Winnemucca and Battle bands of Shoshone.	840	Executive order, June 18, 1917, setting aside 840 acres of public domain for 2 bands of homeless Indians.
Total.....	602,592	

¹ Surveyed; partly in Idaho.

TABLE 6.—General data for each Indian reservation, under what agency or school, tribes occupying or belonging to it, area not allotted or specially reserved, and authority for its establishment, to June 30, 1917—Continued.

Name of reservation and tribe.	Area (unallotted).	Treaties, laws, or other authorities relating to reserves.
NEW MEXICO.		
Jicarilla Apache..... (Under Jicarilla School.) Tribe: Jicarilla Apache.	Acres. 407,300	Executive orders, Mar. 25, 1874, July 18, 1876, Sept. 21, 1880, May 15, 1884, and Feb. 11, 1887; 129,313.35 acres allotted to 845 Indians and 280.44 acres reserved for mission, school, and agency purposes. (L. B. 335, p. 323.) Executive orders of Nov. 11, 1907, and Jan. 28, 1908. The above mentioned 845 allotments have been canceled; reallocations have been made under the act of Mar. 1, 1907 (34 Stat.L., 1413). (See 64513-1909.) (Allotments to 797 Indians covering 354,294 acres approved Aug. 28, 1909.)
Mescalero Apache..... (Under Mescalero School.) Tribes: Mescalero and Mimbreno Apache.	474,240	Executive orders, May 29, 1873, Feb. 2, 1874, Oct. 20, 1875, May 19, 1882, and Mar. 24, 1883. (See 25961, 48860, 75169, 75469-1908, and 14203, 26542-1909 and Senate bill 5602, 60th Cong., 1st sess.)
Navajo.....	40,244	Executive order, Jan. 15, 1917, setting aside 49,244 acres for Navajo and other Indians.
Pueblo: (Under Santa Fe and Albuquerque Schools.) Tribe: Pueblo—		
Jemez.....	142,359	Confirmed by United States patents in 1864, under old Spanish grants; acts of Dec. 22, 1858, vol. 11, p. 374, and June 21, 1860, vol. 12, p. 71. (See General Land Office Report for 1876, p. 242, and for 1880, p. 658.) See Executive orders of June 13 and Sept. 4, 1902, setting apart additional lands for San Felipe and Nambé Pueblos, and Executive order of July 29, 1905, setting apart additional lands for Santa Clara Pueblo. (See 60806-1905.) Approximately 32,000 acres added. Area original Santa Clara Pueblo, 17,368.52. Executive orders, Dec. 19, 1906, Sept. 1, 1911, and Oct. 4, 1915, withdrawing 23,900 acres for Jemez Indians. Area of original Spanish grant, 17,510 acres. Executive order, July 1, 1910, 28,800 acres. Area of Pueblo proper, 125,225. (See 55714-1910.) Total area Pueblos, including Zuni and Executive order res'n, 1,008,346. Resurveys 33149-14. Executive order Mar. 21, 1917, setting aside acres for Indians of Laguna Pueblo.
Acoma.....	195,792	
San Juan.....	17,545	
Picuris.....	17,461	
San Felipe.....	134,767	
Cochiti.....	124,256	
Santo Domingo.....	192,398	
Taos.....	17,361	
Santa Clara.....	49,369	
Tesuque.....	17,471	
San Ildefonso.....	17,293	
Pojoaque.....	13,520	
Sia.....	17,515	
San Dia.....	24,187	
Isleta.....	110,080	
Nambé.....	13,586	
Laguna.....	101,511	
Laguna withdrawals.....	150,000	
Santa Ana.....	17,361	
Zuni..... (Under Zuni School.) Tribe: Zuni Pueblo.	215,040	Executive orders, Mar. 16, 1877, May 1, 1883, and Mar. 3, 1885. Irrigable lands surveyed. (Area of original Spanish grant 17,581.25 acres.)
Total.....	2,019,656	
NEW YORK.		
Allegheny..... (Under New York Agency.) Tribes: Onondago and Seneca.	30,469	Treaties of Sept. 15, 1797, vol. 7, p. 601, and of May 20, 1842, vol. 7, p. 587.
Cattaraugus..... (Under New York Agency.) Tribes: Cayuga, Onondaga, and Seneca.	21,680	Treaties of Sept. 15, 1797, vol. 7, p. 601; June 30, 1802, vol. 7, p. 70, and of May 20, 1842, vol. 7, p. 587. (See Ann. Rept., 1877, p. 164.)
Oil Spring..... (Under New York Agency.) Tribe: Seneca.	640	By arrangement with the State of New York. (See Ann. Rept., 1877, p. 166.) Seneca agreement of Jan. 3, 1893, ratified by act of Feb. 20, 1893, vol. 27, p. 470; act of June 7, 1897, vol. 30, p. 89.
Oneida..... (Under New York Agency.) Tribe: Oneida.	350	Treaty of Nov. 11, 1794, vol. 7, p. 44, and arrangement with the State of New York. (See Ann. Rept., 1877, p. 168.)
Onondaga..... (Under New York Agency.) Tribes: Oneida, Onondaga, and St. Regis.	6,100	Do.
St. Regis..... (Under New York Agency.) Tribe: St. Regis.	14,640	Treaty of May 13, 1796, vol. 7, p. 55. (See Ann. Rept., 1877, p. 168.) They hold about 24,250 acres in Canada.
Tonawanda..... (Under New York Agency.) Tribes: Cayuga and Tonawanda Bands of Seneca.	7,549	Treaties of Sept. 15, 1797, vol. 7, p. 601, and Nov. 5, 1857, vol. 12, p. 991; purchased by the Indians and held in trust by the comptroller of New York; deed dated Feb. 14, 1862. (See also Ann. Rept., 1877, p. 165.)
Tuscarora..... (Under New York Agency.) Tribes: Onondaga and Tuscarora.	6,249	Treaty of Jan. 15, 1838, vol. 7, p. 551, and arrangement (grant and purchase) between the Indians and the Holland Land Co. (See Ann. Rept., 1877, p. 167.)
Total.....	87,677	

¹ Outboundaries surveyed.² Partly surveyed.³ Surveyed.

TABLE 6.—General data for each Indian reservation, under what agency or school, tribes occupying or belonging to it, area not allotted or specially reserved, and authority for its establishment, to June 30, 1917—Continued.

Name of reservation and tribe.	Area (unallotted).	Treaties, laws, or other authorities relating to reserves.
NORTH CAROLINA.		
Qualla boundary and other lands. (Under Eastern Cherokee School.) Tribe: Eastern Band of Cherokee.	Acres. 148,000 15,211	Held by deed to Indians under decision of U. S. circuit court for western district of North Carolina, entered at November term, 1874, confirming the award of Rufus Barringer and others, dated Oct. 23, 1874, and acts of Aug. 14, 1876, vol. 19, p. 139, and Aug. 23, 1894, vol. 28, p. 441, and deeds to Indians from Johnston and others, dated Oct. 9, 1876, and Aug. 14, 1880. (See also H. Ex. Docs. No. 196, 47th Cong., 1st sess., and No. 128, 53d Cong., 2d sess.) Now held in fee by Indians, who are incorporated. Act of Mar. 3, 1903, vol. 32, p. 1000. (See Opinions of Asst. Atty. Gen., Mar. 14, 1894, and Feb. 3, 1904.) 35,000 acres of the 98,211 acres sold. Deeds dated Oct. 4, 1906; approved Dec. 12, 1908.
Total.....	63,211	
NORTH DAKOTA.		
Devils Lake..... (Under Fort Totten School.) Tribes: Assiniboin, Cuthead, Santee, Sisseton, Yankton, and Wahpeton Sioux.		Treaty of Feb. 19, 1867, vol. 15, p. 505, agreement Sept. 20, 1872, confirmed in Indian appropriation act approved June 22, 1874, vol. 18, p. 167. (See pp. 328-337 Comp. Indian Laws.) 137,381 acres allotted to 1,180 Indians; 777.63 acres reserved for church and 193.61 acres reserved for Government purposes. Act of Apr. 27, 1904, vol. 33, p. 319, to amend and ratify agreement made Nov. 2, 1901. President's proclamation of June 2, 1904, vol. 33, p. 2368.
Fort Berthold..... (Under Fort Berthold School.) Tribes: Arikara, Grosventre, and Mandan.	100,000	Unratified agreement of Sept. 17, 1851, and July 27, 1866 (see Laws relating to Indian Affairs, Department of Interior, 1883), pp. 317 and 322; Executive orders, Apr. 12, 1870, July 13, 1880, and June 17, 1892; agreement Dec. 14, 1888, ratified by act of Mar. 3, 1891, vol. 26, p. 1032. (See Pres. proc. May 20, 1891, vol. 27, p. 979.) 229,634.91 acres allotted to 1,379 Indians (see letter book 445, p. 311). Under acts of Mar. 1, 1907 (34 Stat. L., 1042), and June 1, 1910 (36 Stat. L., 455), 532 allotments, aggregating 35,687 acres, were approved Aug. 15, 1910, 579 allotments, aggregating 112,544 acres, were approved Apr. 5, 1912, and 787 allotments, aggregating 206,154 acres, were approved Nov. 29, 1915. See (61502-1910, proclamation June 29, 1911 (40 L. D., 151), 227,504 acres open; see H. J. Res. Apr. 3, 1912 (37 Stat. L., 631), and proclamation of Sept. 17, 1915, opening surface of lands classified as coal to homestead entry, authorized by act of Aug. 3, 1914 (38 Stat. L., 681).
Standing Rock..... (Under Standing Rock School.) Tribes: Blackfeet, Hunkpapa, Upper and Lower Yanktonai Sioux.		Treaty of Apr. 29, 1868, vol. 15, p. 635, and Executive orders Jan. 11-Mar. 16, 1875, and Nov. 28, 1876. Agreement ratified by act of Feb. 28, 1877, vol. 19, p. 254, and Executive orders Aug. 9, 1879, and Mar. 20, 1884 (1,520,640 acres in South Dakota); unratified agreement of Oct. 17, 1882. (For modification see sundry civil appropriation act approved Mar. 3, 1883, vol. 22, p. 624; for text see Misc. Indian Doc., vol. 14, p. 305.) Act of Congress of Apr. 30, 1888, vol. 25, p. 94, not accepted. Act of Congress, Mar. 2, 1889, vol. 25, p. 888. President's proclamation of Feb. 10, 1890, vol. 26, p. 1554. Under acts Mar. 2, 1889, supra, Mar. 1, 1907 (34 Stat. L., 1041), May 29, 1908 (35 Stat. L., 451-460), and Feb. 14, 1913 (37 Stat. L., 675), 4,717 Indians have been allotted 1,388,612 acres. Under President's proclamation of Aug. 19, 1909 (36 Stat. L., 2500), 1,061,500 acres were opened to settlement. Remainder of lands opened to settlement by proclamation Mar. 15, 1915, as authorized by act Feb. 14, 1913 (37 Stat. L., 675,680).
Turtle Mountain..... (Under Turtle Mountain Agency.) Tribe: Pembina Chippewa.		Executive orders Dec. 21, 1882, Mar. 29 and June 3, 1884. Agreement made Oct. 2, 1892, amended by Indian appropriation act approved and ratified Apr. 21, 1904, vol. 33, p. 194. 43,820 acres allotted to 326 Indians and 186 acres reserved for church and school purposes under the above-named act. Allotments to 2,667 members of this band on public domain aggregating 396,338.52 acres have been approved.
Total.....	100,000	

¹ Surveyed.

TABLE 6.—General data for each Indian reservation, under what agency or school, tribes occupying or belonging to it, area not allotted or specially reserved, and authority for its establishment, to June 30, 1917—Continued.

Name of reservation and tribe.	Area (unallotted).	Treaties, laws, or other authorities relating to reserves.
OKLAHOMA.		
Apache..... (Under Kiowa School.)	<i>Acres.</i>	Formerly Fort Sill. (See Executive order Feb. 26, 1897.) Act Mar. 3, 1901 (31 Stat., 1173); act June 28, 1902 (32 Stat., 467). Ex. Doc. No. 117, 49th Cong., 2d sess., act Aug. 24, 1912 (37 Stat., 834); act June 30, 1913 (38 Stat., 92). Lands to be purchased for those members of this band, some 80 in number, who elected to remain in Oklahoma.
Cherokee..... (Under superintendent Five Civilized Tribes.)		Treaty with Western Cherokees at city of Washington, May 6, 1828 (7 Stat., 311) as amended by the treaty at Fort Gibson, of Feb. 14, 1833 (7 Stat., 414); referred to in treaty with Cherokees at New Echota, Ga., Dec. 29, 1835 (7 Stat., 478); July 19, 1866 (14 Stat., 709), as supplemented by treaty of Apr. 27, 1868 (16 Stat., 727). Agreement of July 1, 1902 (32 Stat., 716). Approximately 41,824 Cherokees, including 4,919 freedmen, were allotted an average of 110 acres, 40 acres of which was a homestead to be nontaxable while held by the original allottee. Total acreage allotted, 4,346,203; sold, 50,985.
Cherokee Outlet.....		Agreement of Dec. 19, 1891; ratified sec. 10 by act of Mar. 3, 1893 (27 Stat., 640), unoccupied part of Cherokee Outlet, not included in Territory of Oklahoma (26 Stat., 81). 62 Indians allotted 4,949.45 acres under act of Mar. 3, 1893.
Cheyenne and Arapaho..... (Under Cheyenne and Arapaho, Cantonment, and Seger Schools.) Tribe: Southern Arapaho and Northern and Southern Cheyenne.		Executive order Aug. 10, 1869; unratified agreement with Wichita, Caddo, and others, Oct. 19, 1872. (See Ann. Rept., 1872, p. 101.) Executive orders of Apr. 18, 1882, and Jan. 17, 1883, relative to Fort Supply Military Reserve (relinquished for disposal under act of Congress of July 5, 1894, by authority of Executive order of Nov. 5, 1894; see General Land Office Report, 1899, p. 158). Executive order of July 17, 1883, relative to Fort Reno Military Reserve. Agreement made October, 1890, and ratified and confirmed in Indian appropriation act approved Mar. 3, 1891, vol. 26, pp. 1022-1026. 528,789 acres allotted to 3,331 Indians; 231,828.55 acres for Oklahoma school lands; 32,343.93 acres reserved for military, agency, mission, etc., purposes; the residue, 3,500,562.05 acres, opened to settlement. (See Pres. proc. Apr. 12, 1892, vol. 27, p. 1018.) Executive order, July 12, 1895. President's proclamation of Aug. 12, 1903, vol. 33, p. 2317. Act June 17, 1910 (36 Stat., 533), 57,637-10. Executive order Dec. 29, 1915, setting aside 40 acres for agency and school purposes.
Chickasaw..... (Under superintendent Five Civilized Tribes, Muskogee, Okla.)	721	Treaty of June 22, 1855, vol. 11, p. 611; agreement of Apr. 23, 1897, ratified by act of June 28, 1898, vol. 30, p. 505; act of July 1, 1902, vol. 32, p. 641, ratifying agreement of Mar. 21, 1902; act of Apr. 21, 1904, vol. 33, p. 209; act of Apr. 28, 1904, vol. 33, p. 544. 10,966 Indians have been allotted 3,800,350 acres; sold, 869,384 acres; unallotted area, 721 acres.
Choctaw..... (Under superintendent Five Civilized Tribes, Muskogee, Okla.)	1 458, 937	Treaty of June 22, 1855, vol. 11, p. 611. Same as Chickasaw. Approximately 26,828 Indians have been allotted 4,291,036 acres; sold, 2,142,067 acres; unsold, 458,937 acres, which includes 400,800 acres of timber and 50,200 acres of segregated coal and asphalt land and 500 acres of other unallotted land to be offered for sale from Oct. 15 to 31, 1917, belonging to the Choctaw and Chickasaw Nations jointly.
Creek..... (Under superintendent Five Civilized Tribes, Muskogee, Okla.)	2, 495	Treaties of Feb. 14, 1833, vol. 7, p. 417, and June 14, 1866, vol. 14, p. 785, and the deficiency appropriation act of Aug. 5, 1882, vol. 22, p. 265. (See Ann. Rept. 1882, p. liv.) Agreement of Jan. 19, 1889, ratified by the act of Mar. 1, 1889, vol. 25, p. 757; President's proclamation, Mar. 23, 1889, vol. 26, p. 1544; agreement of Sept. 27, 1897, ratified by act of June 28, 1898, vol. 30, p. 514; agreement of Mar. 8, 1900, ratified by act of Mar. 1, 1901, vol. 31, p. 861; President's proclamation of June 25, 1901, vol. 32, p. 1971; supplemental agreement of June 30, 1902, vol. 32, p. 500; President's proclamation of Aug. 8, 1902, vol. 32, p. 2021. (See act of May 27, 1902, vol. 32, p. 258; act of Apr. 21, 1904, vol. 33, p. 204.) Approximately 18,761 Indians have been allotted 2,997,114 acres; sold, 63,470 acres.
Iowa..... (Under Sac and Fox School.) Tribe: Iowa and Tonkawa.		Executive order, Aug. 15, 1883; agreement May 20, 1890, ratified by act of Feb. 13, 1891, vol. 26, p. 753. 8,605 acres allotted to 108 Indians; 20 acres held in common for church, school, etc.; the residue opened to settlement. Proclamation of President Sept. 18, 1891, vol. 27, p. 989. (See Ann. Rept. 1891, p. 677, and letter book 222, p. 364.)

¹ Partly surveyed.

TABLE 6.—*General data for each Indian reservation, under what agency or school, tribes occupying or belonging to it, area not allotted or specially reserved, and authority for its establishment, to June 30, 1917*—Continued.

Name of reservation and tribe.	Area (unallotted).	Treaties, laws, or other authorities relating to reserves.
OKLAHOMA —continued.		
Kansa or Kaw (Under Ponca School.) Tribe: Kansa or Kaw.	Acres.	Act of June 5, 1872, vol. 17, p. 228. 260 acres reserved for cemetery, school, and town site. Remainder, 90,644 acres, allotted to 247 Indians; act of July 1, 1902, vol. 32, p. 636, ratifying agreement, not dated. Act Mar. 3, 1909. (35 Stat., 778.)
Kickapoo (Under Shawnee School.) Tribe: Mexican Kickapoo.		Executive order, Aug. 15, 1883; agreement June 21, 1891; ratified by act of Mar. 3, 1893, vol. 27, p. 557. 22,650 acres allotted to 280 Indians; 479.72 acres reserved for mission, agency, and school purposes; residue opened to settlement by proclamation of the President May 18, 1895, vol. 29, p. 868; act of Mar. 3, 1903, vol. 32, p. 1001. June 21, 1906. (34 Stat., 862.)
Kiowa and Comanche (Under Kiowa Agency.) Tribes: Apache, Comanche, Delaware, and Kiowa.		Treaty of Oct. 21, 1867, vol. 15, pp. 581 and 589; agreement made Oct. 6, 1892; ratified by act of June 6, 1900, vol. 31, p. 676, ceding 2,488,893 acres, of which 445,000 acres have been allotted to 3,444 Indians; 11,972 acres reserved for agency, school, religious, and other purposes. The residue, 2,033,583 acres, opened to settlement (letter books 486, p. 440; 488, p. 478). President's proclamation of July 4, 1901, vol. 32, p. 1975; June 23, 1902, vol. 32, p. 2007; Sept. 4, 1902, vol. 32, p. 2026; and Mar. 29, 1904, vol. 33, p. 2340. Of the 480,000 acres grazing land set apart under act of June 6, 1900, 1,841.92 acres were reserved for town sites under act Mar. 20, 1906 (34 Stat. L., 801), 82,059.52 acres were allotted to 513 Indians under act of June 5, 1906 (34 Stat. L., 213), and 480 acres allotted to 3 Indians under act of June 5, as amended by act Mar. 1, 1907 (34 Stat. L., 1018). The General Land Office reports the sale and entry of approximately 401,465.92 acres under act of June 5, and of 21,251.75 acres under act of June 28, 1906, to June 30, 1911. (See 87404-1909.) (See 75344-1908.) Under act May 29, 1908 (35 Stat., 471), and act June 25, 1910 (36 Stat., 861), 20,498 acres allotted to 169 Indians. Sale of unused, unreserved lands, act Mar. 3, 1911 (36 Stat., 1069). Act Mar. 4, 1915, Department of Agriculture experiment station. Sale of school and agency reserves, act June 30, 1913 (38 Stat., 92).
Fort Sill Apaches (Under Kiowa School.)		Formerly prisoners of war, remnants and descendants of Chief Geronimo's Band. 6,149 acres of inherited Kiowa Comanche and Apache lands were purchased by the United States for reallocation to 81 Indians and 3 whites of this band, who elected to remain in Oklahoma. (187 of the band removed to Mesquero. See Ann. Rept. 1913.) These lands were purchased under the acts of June 25, 1910 (36 Stat., 855), Aug. 24, 1912 (37 Stat., 534), appropriating \$200,000; June 30, 1913 (38 Stat., 94), appropriating \$100,000; and Aug. 1, 1914 (38 Stat., 587). See Executive order Feb. 26, 1897, act Mar. 3, 1901 (31 Stat., 1173); act June 28, 1902 (32 Stat., 467); Ex. Doc. No. 117, 49th Cong., 2d sess.
Modoc (Under Seneca School.) Tribe: Modoc.		Agreement with Eastern Shawnees made June 23, 1874 (see Ann. Rept. 1882, p. 271), and confirmed in Indian appropriation act approved Mar. 3, 1875, vol. 18, p. 447. Lands all allotted—3,966 acres allotted to 68 Indians, 8 acres reserved for church and cemetery purposes, 2 acres for school and 24 acres for timber. (Letter book 220, p. 102.) Act Mar. 3, 1909. (35 Stat., 752.) Ex. order Sept. 14, 1916, extending trust period 10 years with exception of 12 allottees.
Oakland (Under Ponca School.) Tribes: Tonkawa and Lipan.		Act of May 27, 1878, vol. 20, p. 84. (See Ann. Rept. for 1882, p. LXII.) (See deed dated June 14, 1883, from Cherokee, vol. 6, Indian Deeds, p. 476.) (See deed from Nez Perce, May 22, 1885, vol. 6, Indian Deeds, p. 504.) 11,456 acres allotted to 73 Indians; 160.50 acres reserved for Government and school purposes. The residue, 79,276.60 acres, opened to settlement. (Letter book 257, p. 240.) Agreement made Oct. 21, 1891, ratified by Indians appropriation act approved Mar. 3, 1893, vol. 27, p. 644. (For text, see Ann. Rept., 1893, p. 524.)
Osage (Under Osage School.) Tribes: Great and Little Osage.		Article 16, Cherokee treaty of July 19, 1866, vol. 14, p. 804; order of Secretary of the Interior, Mar. 27, 1871; act of June 5, 1872, vol. 17, p. 228. (See deed dated June 14, 1883, from Cherokee, vol. 6, Indian Deeds, p. 482.) (See act of June 28, 1906 (34 Stat., 539), act of Mar. 3, 1909 (35 Stat., 787), and Public Resolution No. 51, approved Feb. 28, 1909.) 2,230 Indians have been allotted 1,065,134.31 acres (3 selections). Since July 1, 1909, these 2,230 Indians have been allotted 1,465,350 acres from surplus lands, and 5,178.53 acres have been reserved for church, town-site, and railroad purposes. Act Mar. 3, 1909 (35 Stat., 778). Act Apr. 18, 1912 (37 Stat., 86), and Executive order June 1, 1914, rates of royalty on oil.

TABLE 6.—General data for each Indian reservation, under what agency or school, tribes occupying or belonging to it, area not allotted or specially reserved, and authority for its establishment, to June 30, 1917—Continued.

Name of reservation and tribe.	Area (unallotted).	Treaties, laws, or other authorities relating to reserves.
OKLAHOMA—continued.		
Otoe (Under Otoe School.) Tribe: Otoe and Missouri.	<i>Acres.</i>	Act of Mar. 3, 1881, vol. 21, p. 281: order of the Secretary of the Interior, June 26, 1881. (See deed dated June 14, 1883, from Cherokee, vol. 6, Indian Deeds, p. 479. Under acts of Feb. 8, 1887 (24 Stats., 288), Feb. 22, 1891 (26 Stats., 794), and Apr. 21, 1904 (33 Stats., 139), 125,251 acres were allotted to 514 Indians (388 allotments—see letter book 929, p. 326), 720 acres were reserved for agency, school, church, and cemetery purposes, and 640 acres set aside for tribal uses. Also act June 22, 1910 (36 Stat., 530-551.)
Ottawa (Under Seneca School.) Tribe: Ottawa of Blanchards Fork and Roche de Boeuf.		Treaty of Feb. 23, 1867, vol. 15, p. 513: 12,995 acres were allotted to 180 Indians; 537.95 acres were authorized to be sold by act of Mar. 3, 1891 (vol. 26, p. 969). The residue, 1,587.25 acres, sold. Letter book 229, p. 115, and act Mar. 3, 1909 (35 Stat., 752).
Pawnee (Under Pawnee School.) Tribe: Pawnee.		Act of Apr. 10, 1876, vol. 19, p. 29. Of this, 230,014 acres are Cherokee and 53,006 acres are Creek lands. (See deed dated June 14, 1883, from Cherokee, vol. 6, Indian Deeds, p. 470.) 112,701 acres allotted to 820 Indians; 840 acres were reserved for school, agency, and cemetery purposes; the residue, 169,320 acres, opened to settlement. (Letter books 261, p. 388, and 263, p. 5.) Agreement made Nov. 23, 1892, ratified by act of Mar. 3, 1893, vol. 27, p. 644. (For text see Ann. Rept., 1893, p. 526.)
Peoria (Under Seneca School.) Tribe: Kaskaskia, Miami, Peoria, Piankashaw, and Wea.		Treaty of Feb. 23, 1867, vol. 15, p. 513. 43,324 acres allotted to 218 Indians. The residue, 6,313.27 acres, sold under act of May 27, 1902 (32 Stats., 245).
Ponca (Under Ponca School.) Tribe: Ponca.	1 387	Acts of Aug. 15, 1876, vol. 19, p. 192; Mar. 3, 1877, vol. 19, p. 287; May 27, 1878, vol. 20, p. 76; and Mar. 3, 1891, vol. 21, p. 422. (See deed dated June 14, 1883, from Cherokee, vol. 6, Indian Deeds, p. 473.) There have been allotted to 783 Indians 100,784 acres, and reserved for agency, school, mission, and cemetery purposes 523.56 acres, leaving unallotted and unreserved 387 acres. (Letter books 302, p. 311, and 313, p. 401.) Indian appropriation act approved Apr. 21, 1904, vol. 33, p. 217. (See 88067-1915.)
Potawatomi (Under Shawnee School.) Tribe: Absentee Shawnee and citizen Potawatomi.		Treaty of Feb. 27, 1867, vol. 15, p. 531: act of May 23, 1872, vol. 17, p. 159. (222,716 acres are Creek ceded land; 365,381 acres are Seminole lands.) Agreements with citizen Potawatomi June 25 and absentee Shawnees June 26, 1890; ratified and confirmed in the Indian appropriation act of Mar. 3, 1891, vol. 26, pp. 1016-1021. 215,899.42 acres allotted to 1,490 Potawatomi, and 70,791.47 acres allotted to 563 absentee Shawnees, and 510.63 acres reserved for Government purposes; the residue opened to settlement by the President's proclamation of Sept. 18, 1891, vol. 27, p. 689. (See letter book 222, pp. 442, 444, and Ann. Rept. for 1891, p. 677.) Executive Order Nov. 24, 1916, and Jan. 15, 1917, extending trust period 10 years with exception of 16 absentee Shawnees, 85 citizen Potawatomi.
Quapaw (Under Seneca School.) Tribe: Quapaw.		Treaties of May 13, 1833, vol. 7, p. 424, and of Feb. 23, 1867, vol. 15, p. 513. 56,245.21 acres allotted to 245 Indians, 400 acres reserved for school and 40 acres for church purposes. (Letter book 335, p. 326.) Agreement of Mar. 23, 1893, ratified in Indian appropriation act approved Mar. 3, 1895, vol. 28, p. 907. Agreement of Jan. 2, 1899, ratified in Indian appropriation act approved Mar. 3, 1901, vol. 31, p. 1067. Act of Mar. 3, 1903, vol. 32, p. 997.
Sauk and Fox (Under Sac and Fox School.) Tribe: Ottawa, Sauk and Fox of the Mississippi.		Treaty of Feb. 18, 1867, vol. 15, p. 495; agreement June 12, 1890; ratified by act of Feb. 13, 1891, vol. 26, p. 749. 87,683.46 acres allotted to 548 Indians, and 800 acres reserved for school and agency purposes; the residue opened to settlement by the President's proclamation Sept. 18, 1891, vol. 27, p. 989. (See letter book 222, p. 169, and Ann. Rept. for 1891, p. 677.) Trust period extended for 10 years by Executive order of Mar. 27, 1896; again by Executive order of Aug. 23, 1906; again by Executive order of Aug. 1, 1916, with exception of 55 allottees.
Seminole (Under superintendent Five Civilized Tribes, Muskogee, Okla.)	162	Treaties of Mar. 21, 1856, vol. 14, p. 755. (See Creek agreement of Feb. 14, 1881, Ann. Rept. 1882, p. 54, and deficiency act of Aug. 5, 1883, vol. 22, p. 265.) Agreement of Mar. 16, 1889. (See Indian appropriation act approved Mar. 2, 1890.) Agreement recorded in the treaty book, vol. 3, p. 35; agreement made Dec. 16, 1897, ratified by the act of July 1, 1898, vol. 30, p. 507; agreement of Oct. 7, 1899, ratified by act of June 2, 1900, vol. 31, p. 250. Approximately 3,127 Indians have been allotted 359,536 acres; sold, 4,223.74 acres, remaining unsold, 162 acres.

1 Surveyed.

TABLE 6.—General data for each Indian reservation, under what agency or school, tribes occupying or belonging to it, area not allotted or specially reserved, and authority for its establishment, to June 30, 1917—Continued.

Name of reservation and tribe.	Area (unallotted).	Treaties, laws, or other authorities relating to reserves.
OKLAHOMA—continued.		
Seneca (Under Seneca School.) Tribes: Seneca, Eastern Shawnee, Wyandot, Peoria, etc.	<i>Acres.</i>	Treaties of Feb. 28, 1831, vol. 7, p. 348; of Dec. 29, 1832, vol. 7, p. 411, and of Feb. 23, 1867, vol. 15, p. 513. 41,813 acres allotted to 435 Indians; 104.22 acres reserved for Government, church, and school purposes. Agreement of Dec. 2, 1901, ratified by act of May 27, 1902, vol. 32, p. 262; Executive order Feb. 15, 1916, extending trust period for 10 years, with exception of 44 allottees.
Shawnee (Under Seneca School.) Tribes: Seneca, absentee Shawnee, Mexican Kickapoo.		Treaties of July 20, 1831, vol. 7, p. 351; of Dec. 29, 1832, vol. 7, p. 411; of Feb. 23, 1867, vol. 15, p. 513, and agreement with Modocs, made June 23, 1874 (see Ann. Rept., 1882, p. 271), confirmed by Congress in Indian appropriation act approved Mar. 3, 1875, vol. 18, p. 447. 12,745 acres allotted to 117 Indians; 86 acres reserved for agency purposes (letter books 208, p. 266, and 233, p. 207); the residue, 2,543 acres, sold (agreement of Dec. 2, 1901, ratified by act of May 27, 1902, vol. 32, p. 262).
Wichita (Under Kiowa Agency.) Tribes: Ioni, Caddo, Comanche, Delaware, Towa-koni Waco, and Wichita.		(See treaty of July 4, 1866, with Delawares, art. 4, vol. 14, p. 794.) Unratified agreement, Oct. 19, 1872. (See Ann. Rept., 1872, p. 101.) Agreement made June 4, 1891, ratified by act of Mar. 2, 1895, vol. 28, p. 895. 152,714 acres allotted to 957 Indians; 4,151 acres reserved for agency, school, religious, and other purposes. The residue, 536,468 acres, opened to settlement (letter book 490, p. 90). President's proclamation of July 4, 1901, vol. 32, p. 1975. Unoccupied Chickasaw and Choctaw leased lands west of the North Fork of the Red River. Act of May 4, 1896, vol. 29, p. 113. President's proclamation, Mar. 16, 1896, vol. 29, p. 878. Act of June 6, 1900 (31 Stat., 680).
Wyandot (Under Seneca School.) Tribe: Wyandot.		Treaty of Feb. 23, 1867, vol. 15, p. 513. 20,942 acres allotted to 244 Indians, 16 acres to churches, etc., leaving 534.72 acres unallotted (letter book 228, p. 332). Unallotted land sold, act Mar. 3, 1909 (35 Stat., 752). Act Apr. 28, 1904 (33 Stat., 519), allotments on public domain to absentee Wyandot.
Total	462,702	
OREGON.		
Grande Ronde (Under Siletz Agency.) Tribes: Kalapuya, Clackamas, Cow Creek, Lakmiut, Marys River, Molala, Nestucca, Rogue River, Santiam, Shasta, Tumwater, Umpqua, Wapato, and Yamhill.		Treaties of Jan. 22, 1855, vol. 10, p. 1143, and of Dec. 21, 1855, vol. 12, p. 982; Executive order June 30, 1857. 440 acres reserved for Government use and 32,983 acres allotted to 269 Indians. (See letter book 210, p. 328.) Act of Apr. 28, 1904, vol. 33, p. 667, amending and ratifying agreement of June 27, 1901 (33 L. D., 686). Executive order Apr. 29, 1916, extending trust period 10 years with exception of 66 allottees.
Klamath (Under Klamath School.) Tribes: Klamath, Modoc, Paiute, Pit River, Wapapa, and Yahooskin Band of Snake (Shoshoni).	1812,707	Treaty of Oct. 14, 1864, vol. 16, p. 707. Act June 10, 1896 (29 Stat., 321). Act of May 27, 1902 (32 Stat., 260). 208,278 acres allotted to 1,345 Indians; 6,094.77 acres reserved for agency, school, and church purposes. Indian appropriation act approved Apr. 21, 1904, vol. 33, p. 202; act of Mar. 3, 1905, vol. 33, p. 1033, and act of June 21, 1906 (34 Stat., 367). (See act of Mar. 3, 1909 (35 Stat. L., 752), removal of Modocs in Oklahoma to Klamath and allotments thereto.) Boundary dispute (see 9881-1911).
Siletz (Under Siletz Agency.) Tribes: Alsea, Coquille, Kusan, Kwatami, Rogue River, Skoton, Shasta, Saustrake, Sitlaw, Tututni, Umpqua, and 13 others.		Unratified treaty, Aug. 11, 1855; Executive orders Nov. 9, 1855, and Dec. 21, 1855, and act of Mar. 3, 1875, vol. 18, p. 446. Agreement Oct. 31, 1892, ratified by act of Aug. 15, 1894, vol. 28, p. 323. 44,459 acres allotted to 551 Indians. Residue, 177,563.66 acres (except 5 sections), ceded to United States. (See letter book 281, p. 358.) President's proclamation, May 16, 1895, vol. 29, p. 866. Acts of May 31, 1900, vol. 31, p. 233, and Mar. 3, 1901, vol. 31, p. 1085. Act of May 13, 1910 (36 Stat., 367). Executive order July 19, 1915.
Umatilla (Under Umatilla School.) Tribes: Cayuse, Umatilla, and Wallawalla.	274,032	Treaty of June 9, 1855, vol. 12, p. 945, and act of Aug. 5, 1882, vol. 22, p. 297; Mar. 3, 1885, vol. 23, p. 340, and sec. 8 of act of Oct. 17, 1888, vol. 25, p. 559. (See orders Secretary of Interior, Dec. 4, 1888, Ann. Rept., 1891, p. 682.) 82,742 acres allotted to 1,118 Indians, 980 acres reserved for school and mission purposes. (See letter book 255, p. 132.) Act of July 1, 1902, vol. 32, p. 730; act Mar. 2, 1917 (40 Stat.), providing for allotments as long as any land is available.

¹ Outboundaries surveyed.

² Surveyed.

TABLE 6.—General data for each Indian reservation, under what agency or school, tribes occupying or belonging to it, area not allotted or specially reserved, and authority for its establishment, to June 30, 1917—Continued.

Name of reservation and tribe.	Area (unallotted).	Treaties, laws, or other authorities relating to reserves.
OREGON—continued.		
Warm Springs..... (Under Warm Springs School.) Tribes: Des Chutes, John Day, Paiute, Tenino, Warm Springs, and Wasco.	Acres. 1322,275	Treaty of June 25, 1855, vol. 12, p. 963. 140,520 acres allotted to 968 Indians under the general allotment act of February, 1887, as amended, and 1,195 acres reserved for church, school, and agency purposes. Boundary dispute: Acts Aug. 19, 1890 (26 Stat., 355); June 6, 1894 (28 Stat., 86), and Mar. 2, 1917 (40 Stat., —).
Total.....	1,200,014	
SOUTH DAKOTA.		
Crow Creek and Old Winnebago. (Under Crow Creek School.) Tribes: Lower Yanktonai, Lower Brule, Miniconjou, and Two Kettle Sioux.	11,208	Order of department, July 1, 1863 (see Ann. Rept., 1863, p. 318); treaty of Apr. 29, 1868, vol. 15, p. 635, and Executive order, Feb. 27, 1885 (see President's proclamation of Apr. 17, 1885, annulling Executive order of Feb. 27, 1885; Ann. Rept., 1885, p. 51); act of Mar. 2, 1889, vol. 25, p. 888; President's proclamations, Feb. 10, 1890, vol. 26, p. 1554. There have been allotted to 1,461 Indians 272,720 acres, and reserved for agency, school, and religious purposes 1,076.90 acres.
Lake Traverse..... (Under Sisseton School.) Tribes: Sisseton and Wahpeton Sioux.		Treaty of Feb. 19, 1867, vol. 15, p. 505; agreement, Sept. 20, 1872; confirmed in Indian appropriation act approved June 22, 1874, vol. 18, p. 167. (See pp. 328-337, Comp. Indian Laws.) Agreement, Dec. 12, 1889, ratified by act of Mar. 3, 1891, vol. 26, pp. 1935-1938. 308,838 acres allotted to 2,006 Indians, 32,840.25 acres reserved for State school purposes, 1,347.01 acres for church and agency purposes; the residue, 574,678.40 acres, opened to settlement. (See President's proclamation, Apr. 11, 1892, vol. 27, p. 1017.) Trust period extended 10 years, Executive order of Apr. 16, 1914.
Cheyenne River..... (Under Cheyenne River School.) Tribes: Blackfeet, Miniconjou, Sans Arcs, and Two Kettle Sioux.	250,202	Treaty of Apr. 29, 1868, vol. 15, p. 635, and Executive orders, Jan. 11, Mar. 16, and May 20, 1875, and Nov. 23, 1876; agreement ratified by act of Feb. 28, 1877, vol. 19, p. 254, and Executive orders, Aug. 9, 1879, and Mar. 20, 1884. Unratified agreement of Oct. 17, 1882. (For modification see sundry civil appropriation act approved Mar. 3, 1883, vol. 23, p. 624, for text see Misc. Indian Doc., vol. 14, p. 305.) Act of Apr. 30, 1883, vol. 23, p. 94, not accepted. Act of Mar. 2, 1889, vol. 25, p. 888. President's proclamation of Feb. 10, 1890, vol. 26, p. 1554. (See act of Feb. 20, 1890, vol. 26, p. 10.) President's proclamations of Feb. 7, 1903, vol. 32, p. 2085, and Mar. 30, 1904, vol. 33, p. 2340. 1,021,324.99 acres have been allotted to 3,687 Indians. (See L. B. 823, p. 321.) Act of May 29, 1908 (35 Stat. L., 460). Under President's proclamation of Aug. 19, 1909 (36 Stat., 2500), 1,158,010 acres were opened to settlement, leaving unallotted and unreserved 250,202 acres.
Lower Brule..... (Under Lower Brule School.) Tribes: Lower Brule and Lower Yanktonai Sioux.	137,525	Treaty of Apr. 29, 1868, vol. 15, p. 635, and Executive orders, Jan. 11, Mar. 16, and May 20, 1875, and Nov. 23, 1876; agreement ratified by act of Feb. 28, 1877, vol. 19, p. 254, and Executive orders, Aug. 9, 1879, and Mar. 20, 1884. Unratified agreement of Oct. 17, 1882. (For modification see sundry civil appropriation act approved Mar. 3, 1883, vol. 23, p. 624; for text see Misc. Indian Docs., vol. 14, p. 305.) Act of Apr. 30, 1883, vol. 23, p. 94, not accepted. Act of Mar. 2, 1889, vol. 25, p. 888. President's proclamation of Feb. 10, 1890, vol. 26, p. 1554. (See act of Feb. 20, 1890, vol. 26, p. 10.) Agreement made Mar. 1, 1896, ratified by act of Mar. 3, 1899, vol. 30, p. 1862, ceding 120,000 acres to the United States. 202,992 acres allotted to 868 Indians, and 964.06 acres reserved for agency, school, and religious purposes, leaving unallotted and unreserved 37,525 acres. (See letter book 498, p. 236.) (See act of Apr. 21, 1906, 34 Stat., 124 and 1043, and President's proclamations of Aug. 12, 1907, and Sept. 24, 1913.)

1 Surveyed.

TABLE 6.—General data for each Indian reservation, under what agency or school, tribes occupying or belonging to it, area not allotted or specially reserved, and authority for its establishment, to June 30, 1917—Continued.

Name of reservation and tribe.	Area (unallotted).	Treaties, laws, or other authorities relating to reserves.
SOUTH DAKOTA—continued.		
Pine Ridge..... (Under Pine Ridge Agency.) Tribes: Brule Sioux, Northern Cheyenne, and Oglala Sioux.	<i>Acres.</i> 200,000	Treaty of Apr. 29, 1868, vol. 15, p. 635, and Executive orders, Jan. 11, Mar. 16, and May 20, 1875, and Nov. 28, 1876; agreement ratified by act of Feb. 28, 1877, vol. 19, p. 254, and Executive orders, Aug. 9, 1879, and Mar. 20, 1884. Unratified agreement of Oct. 17, 1882. (For modification see sundry civil appropriation act approved Mar. 3, 1883, 22 Stats., 624; for text see Misc. Indian Docs., vol. 14, p. 305.) Act of Apr. 30, 1888 (25 Stats., 94), not accepted. Act of Mar. 2, 1889, vol. 25, p. 888. President's proclamation of Feb. 10, 1890, vol. 26, p. 1554. (See act of Feb. 20, 1896, 29 Stats., 10) A tract of 32,000 acres in Nebraska was set apart by Executive order of Jan. 24, 1882, and was restored to the public domain by Executive order of Jan. 25, 1904; and by Executive order of Feb. 20, 1904, 640 acres of this land was set apart for Indian school purposes and is called the Sioux additional tract. (See Nebraska.) Act of Mar. 2, 1889 (25 Stats., 888), authority of President of July 29, 1904, 2,191,369 acres have been allotted to 8,074 Indians, and 11,333.68 acres reserved for agency, school, and church purposes, aggregating 866,323.19, leaving unallotted and unreserved 200,000 acres. Lands still in process of allotment under acts of Mar. 2, 1889 (25 Stat. L., 888), Mar. 1, 1907 (34 Stat. L., 1048), and May 29, 1908 (35 Stat. L., 451). Act May 27, 1910 (36 Stat., 440), 40,960 acres State school land; 22,434 acres timber reserved. President's proclamation, June 29, 1911 (40 L. D., 164), opening 169,592 acres May 1, 1912.
Rosebud..... (Under Rosebud School.) Tribes: Lower, Miniconjou, Northern Oglalla, Two Kettle, Upper Brule, and Washazhe Sioux.		Treaty of Apr. 29, 1868, vol. 15, p. 635, and Executive orders, Jan. 11, Mar. 16, and May 20, 1875, and Nov. 28, 1876; agreement ratified by act of Feb. 28, 1877, vol. 19, p. 254, and Executive orders, Aug. 9, 1879, and Mar. 20, 1884. Unratified agreement of Oct. 17, 1882. (For modification see sundry civil appropriation act approved Mar. 3, 1883, vol. 22, p. 624; for text see Misc. Indian Docs., vol. 14, p. 305.) Act of Apr. 30, 1888, vol. 25, p. 94, not accepted. Act of Mar. 2, 1889, vol. 25, p. 888. President's proclamation of Feb. 10, 1890, vol. 26, p. 1554. (See act of Feb. 20, 1896, vol. 29, p. 10.) 1,853,605 acres allotted to 8,495 Sioux Indians, 416,000 acres opened to settlement, 29,392.01 reserved for Government purposes, churches, cemeteries, etc. Agreement made Mar. 10, 1898, ratified by act of Mar. 3, 1899, vol. 30, p. 1364. Act of Apr. 23, 1904, vol. 33, p. 254, ratifying agreement made Sept. 14, 1901. President's proclamation of May 16, 1904, vol. 33, p. 2354. Act Mar. 1, 1907 (34 Stat., 1048); act Mar. 2, 1907 (34 Stat., 1230); act May 29, 1908 (35 Stat., 451); act May 30, 1910 (36 Stat., 448); President's proclamation, Aug. 24, 1908 (35 Stat., 2203), opening 838,000 acres in Tripp County. President's proclamation, June 29, 1911 (40 L. D., 164), opening 300,000 acres in Mallette and Washabaugh Counties, 43,520 acres State school land Executive order, July 6, 1912.
Yankton..... (Under Yankton School.) Tribe: Yankton Sioux.		Treaty of Apr. 19, 1858, vol. 11, p. 744. 268,263 acres allotted to 2,613 Indians and 1,252.89 acres reserved for agency, church, and school purposes. (See letter book 207, p. 1.) Agreement Dec. 31, 1892, ratified by act of Aug. 15, 1894, vol. 28, p. 314. The residue open to settlement. (See President's proclamation, May 16, 1895, vol. 29, p. 865.) Executive order Apr. 20, 1916, extending trust period 10 years, with exception of 162 allottees.
Total.....	498,930	
UTAH.		
Goshute and scattering bands.	34,500	Executive order, Mar. 28, 1914.
Palutes.....	7,000	Executive order, Aug. 2, 1915, reserving approximately 7,000 acres for use of Cedar City and Indian Peak Bands of Palutes.
Cedar City and Indian Peak Bands.		136.52 acres in Garfield County, Utah, purchased Nov. 1, 1908.
Panguitch.....		About 1 township in Washington County, Utah, withdrawn by departmental order based on office recommendation of Sept. 28, 1891 (L. B., 223, p. 270). Rights of squatters in withdrawal purchased by United States. (See also act of Mar. 3, 1891, 26 Stat. L., 989-1006.) Executive order Apr. 21, 1916, withdrawing 26,880 acres as Shoshit or Shivwits Reservation.
Shivwits.....	1 26,880	

1 Unsurveyed.

TABLE 6.—General data for each Indian reservation, under what agency or school, tribes occupying or belonging to it, area not allotted or specially reserved, and authority for its establishment, to June 30, 1917—Continued.

Name of reservation and tribe.	Area (unallotted).	Treaties, laws, or other authorities relating to reserves.
UTAH—continued.		
Utah Valley (Under Uintah and Ouray Agency.) Tribes: Goshute, Pavant, Uinta, Yampa, Grand River, Uncompahgre, and White River Ute.	Acres. 1 240,340	Executive orders, Oct. 3, 1861; act of June 18, 1878 (2 Stats., 165); acts of May 5, 1884, vol. 12, p. 63, and May 24, 1888, vol. 25, p. 157; joint resolution of June 19, 1902, vol. 32, p. 744; act of Mar. 3, 1903, vol. 32, p. 997; Indian appropriation act, approved Apr. 21, 1904, vol. 33, p. 207; President's proclamations of July 14, 1906, setting aside 1,010,000 acres as a forest reserve, 2,100 acres as town sites. 1,004,286 acres opened to homestead entry, 2,140 acres in mining claims; under act May 27, 1902 (32 Stats., 263), 69,407 acres allotted to 1,284 Indians, and 60,160 acres under reclamation, the residue, 179,194.66 acres, unallotted and unreserved. (See letter book 75, p. 308.) Executive order, Aug. 19, 1912, restoring lands of Fort Duchesne Military Reservation to the supervision of Interior Department.
Uncompahgre (Under Uintah and Ouray Agency.) Tribe: Tabagwauche Ute.		Executive order, Jan. 5, 1882. (See act of June 15, 1880, ratifying the agreement of Mar. 6, 1880, vol. 21, p. 199.) 12,540 acres allotted to 83 Indians, remainder of reservation restored to public domain, act of June 7, 1897, vol. 30, p. 62. (Letter book 403, p. 115.) Joint resolution of June 19, 1902, vol. 32, p. 744.
Total	317,720	
WASHINGTON.		
Chehalis (Under Cushman School.) Tribes: Chinook (Tsinuk), Clatsop, and Chehalis.		Order of the Secretary of the Interior, July 8, 1864; Executive order, Oct. 1, 1886. 471 acres set aside for school purposes. The residue, 3,753.63 acres, restored to the public domain for Indian homestead entry. 36 Indians made homestead selections, covering all the land. (See letter book 152, p. 201, and 153, p. 45.)
Columbia (Under Colville School.) Tribe: Columbia (Moses Band).		Executive orders, Apr. 19, 1879, Mar. 6, 1880, and Feb. 23, 1883. (See Indian appropriation act of July 4, 1884, vol. 23, p. 79.) Agreement made July 7, 1883, ratified by act of July 4, 1884, vol. 23, p. 79. Executive order, May 1, 1886; Executive order of Mar. 9, 1894; department orders of Apr. 11, 1894, and Apr. 20, 1894, and Executive order of Jan. 19, 1895. 26,218 acres allotted to 35 Indians (see Executive order of May 21, 1886, and act of Mar. 8, 1906, 34 Stats., 55).
Colville (Under Colville Agency.) Tribes: Coeur d'Alene, Colville, Kalispel, Okanagan, Lake Methow, Nespelem, Pend d'Oreille, Sanpoil, and Spokane.	1 1,009,580	Executive orders, Apr. 9 and July 2, 1872; agreement made July 7, 1883, ratified by act of July 4, 1884, vol. 23, p. 79. Act of July 1, 1892, vol. 27, p. 62. (See acts of Feb. 20, 1896, vol. 28, p. 9, and July 1, 1898, vol. 30, p. 593.) 51,653 acres in north half allotted to 600 Indians (see letter book 428, p. 100); remainder of north half, estimated at 1,449,308 acres, opened to settlement Oct. 10, 1900 (see proclamation of the President, dated Apr. 10, 1900, 31 Stats., p. 1963). 240 acres have been reserved for town sites. 2,750.52 acres temporarily withdrawn for town sites. 287,419 acres allotted to 2,469 Indians. The residue, 1,009,580 acres (estimated), unallotted. Act of Feb. 7, 1903, vol. 32, p. 803. Allotments made under act of Mar. 22, 1906 (34 Stat., p. 80), and act of June 25, 1910 (36 Stat., 863). President's proclamation, opening reservation dated May 3, 1916 (39 Stat., p. 58 of proclamations), act Aug. 31, 1916 (39 Stat., 672).
Hoh River (Under Neah Bay School.) Tribe: Hoh.	640	Executive order, Sept. 11, 1893.
Kalispel (Under Coeur d'Alene Agency, Idaho.)	4,629	Executive order, Mar. 23, 1914.
Klickitat (Nonreservation; Roseburg, Oreg.)		6 townships in Gilliam County, Wash., set aside for allotment selection by about 200 Indians under sec. 4, act Feb. 8, 1887 (24 Stat., 388), as amended. (See 80088-1912.)
Lummi (Under Tulalip School.) Tribes: D'wamish, Etak-mur, Lummi, Snohomish, Sukwamish, and Swi-wamish.		Treaty of Point Elliott, Jan. 22, 1855, vol. 12, p. 927; Executive order, Nov. 22, 1873. Allotted 12,500.94 acres to 109 Indians; school conducted on 2-acre tract purchased from John Martin.
Makah (Under Neah Bay School.) Tribes: Makah and Quileute.	1 19,312	Treaty of Neah Bay, Jan. 31, 1855, vol. 12, p. 930; Executive orders, Oct. 26, 1872, Jan. 2, and Oct. 21, 1873. 3,777 acres allotted to 873 Indians. (See letter book 960, 228 and 87670, 1907.)

1 Partly surveyed.

2 Outboundaries surveyed.

TABLE 6.—*General data for each Indian reservation, under what agency or school, tribes occupying or belonging to it, area not allotted or specially reserved, and authority for its establishment, to June 30, 1917—Continued.*

Name of reservation and tribe.	Area (unallotted).	Treaties, laws, or other authorities relating to reserves.
WASHINGTON—continued.		
Muckleshoot..... (Under Cushman School.) Tribe: Muckleshoot.	<i>Acres.</i>	Executive orders, Jan. 20, 1857, and Apr. 9, 1874. 44 Indians have been allotted 3,532.72 acres.
Nisqualli..... (Under Cushman School.) Tribe: Muckleshoot, Nisqualli, Puyallup, Skwawkamish, Stall- akoom, and 5 others.		Treaty of Medicine Creek, Dec. 26, 1854, vol. 10, p. 1132; Executive order, Jan. 20, 1857. Land all allotted. 4,718 acres to 30 Indians.
Osetta..... (Under Neah Bay School.) Tribe: Osetta.	640	Executive order, Apr. 12, 1893.
Port Madison..... (Under Tulalip School.) Tribe: Dwamish, Etak- mur, Lummi, Snoho- mish, Sukwamish, and Swiwmish.	1 65	Treaty of Point Elliott, Jan. 22, 1855, vol. 12, p. 927; order of the Secretary of the Interior, Oct. 21, 1864. 7,219 acres allotted to 51 Indians; the residue, 65 acres, unallotted.
Puyallup..... (Under Cushman School.) Tribe: Muckleshoot, Nisqualli, Puyallup, Skwawkamish, Stall- akoom, and 5 others.		Treaty of Medicine Creek, Dec. 26, 1854, vol. 10, p. 1132; Executive orders, Jan. 20, 1857, and Sept. 6, 1873. 17,463 acres allotted to 167 Indians. Agreement made Nov. 21, 1876, ratified by act of Feb. 20, 1893, vol. 27, p. 464. (For text see annual report 1893, p. 618.) The residue, 599 acres laid out as an addition to the city of Tacoma, has been sold, with the exception of \$9.79 acres reserved for school, and 19.43 acres for church and cemetery purposes, under acts of Mar. 3, 1893 (27 Stat., 633, June 7, 1897) (30 Stat., 62), and act of June 21, 1906 (34 Stat., 377).
Quileute..... (Under Neah Bay School.) Tribe: Quileute.	1 837	Executive order, Feb. 19, 1889.
Quinalt..... (Under Cushman School.) Tribe: Quinalt and Quim- sleet.	1 168, 553	Treaties of Olympia, July 1, 1855, and Jan. 25, 1856, vol. 12, p. 971; Executive order, Nov. 4, 1873. Under acts of Feb. 8, 1887 (24 Stat., 388), and Feb. 28, 1891 (26 Stat., 794), 690 Indians have been allotted 54,989.80 acres and 456.56 have been reserved for agency, lighthouse, and other purposes, leaving unallotted and unreserved 168,553 acres. Act Mar. 4, 1911 (36 Stat., 1545).
Shoalwater..... (Under Cushman School.) Tribe: Shoalwater and Chehalis.	1 335	Executive order, Sept. 22, 1886, 55,585-7-1909.
Skokomish..... (Under Cushman School.) Tribe: Clallam, Skoko- mish, and Twana.		Treaty of Point No Point, Jan. 26, 1855, vol. 12, p. 933; Executive order, Feb. 25, 1874. Allotted in treaty reserve 4,990 acres; residue, none. (See L. B., 895, p. 268.) Allotted in Executive order addition, known as the Fisher addition, 814 acres; residue, none. (L. B., 895, p. 285.) 62 allotments.
Snohomish or Tulalip..... (Under Tulalip School.) Tribe: Dwamish, Etak- mur, Lummi, Snoho- mish, Sukwamish, and Swiwmish.	1 324	Treaty of Point Elliott, Jan. 22, 1855, vol. 12, p. 927; Executive order, Dec. 23, 1873. 22,166 acres allotted to 164 Indians.
Spokane..... (Under Spokane Agency.) Tribe: Spokane.	82, 327	Executive order, Jan. 15, 1881. Agreement made Mar. 15, 1887, ratified by Indian appropriation act approved July 13, 1892, vol. 27, p. 139. (For text see Ann. Rept., 1892, p. 743.) Joint resolution of Congress of June 19, 1902, vol. 32, p. 744. Under act of May 29, 1908 (35 Stat. L., 458) approximately 638 Indians have been allotted 65,114 acres, and 1,247.30 acres set aside for church, school, agency, and town-site purposes. By proclamation of May 22, 1906, the President opened the surplus lands to settlement. 5,781 acres classified as agricultural land, 82,647.50 acres classified as timber reserved for tribal use.
Squaxon Island (Klachechin) (Under Cushman School.) Tribe: Nisqualli, Puyal- up, Skwawkamish, Stallakoom, and 5 others.		Treaty of Medicine Creek, Dec. 26, 1854, vol. 10, p. 1132; land all allotted, 1,494.15 acres, to 23 Indians.

1 Surveyed.

2 Outboundaries surveyed.

TABLE 6.—General data for each Indian reservation, under what agency or school, tribes occupying or belonging to it, area not allotted or specially reserved, and authority for its establishment, to June 30, 1917—Continued.

Name of reservation and tribe.	Area (unallotted).	Treaties, laws, or other authorities relating to reserves.
WASHINGTON—continued.		
Swinomish (Perry's Island)..... (Under Tulalip School.) Tribes: D'wamish, Etak- mur, Lummi, Snoho- mish, Sukwamish, and S'wiwamish.	<i>Acres.</i>	Treaty of Point Elliott, Jan. 22, 1855, vol. 12, p. 627; Execu- tive order, Sept. 9, 1873. Allotted, 7,359 acres to 71 Indians; reserved for school, 89.80 acres.
Yakima..... (Under Yakima School.) Tribes: Kikkitat, Palcos, Topniah, Wasco, and Yakima.	1412,404	Treaty of Walla Walla, June 9, 1855, vol. 12, p. 951. Agree- ment made Jan. 13, 1885, ratified by Indian appropriation act approved Mar. 3, 1893, vol. 27, p. 631. (For texts see Misc. Indian Docs., vol. 41, p. 227; see also Ann. Rept., 1893, pp. 520-531, and S. Ex. Docs. No. 21, 49th Cong., 1st sess., and No. 45, 50th Cong., 1st sess.) Executive order, Nov. 28, 1892. Agreement, Jan. 8, 1894, ratified by act of Aug. 15, 1894, vol. 28, p. 320. 206,407 acres allotted to 3,137 Indians, and 1,020.24 acres reserved for agency, church, and school purposes. (See letter books 354, p. 416; 416, p. 263, and 570, p. 243.) Act of Dec. 21, 1904 (33 Stats., 595), recog- nizing claim of Indians to 268,837 acres additional land, sub- ject to the right of bona fide settlers or purchasers, acquired prior to Mar. 5, 1904. (See 30848, 1906.) Act Mar. 6, 1906 (34 Stat., 68), and act May 6, 1910 (36 Stat., 248), under which 158,102 acres were allotted to 1,300 children. (See 9262-14.)
Total.....	1,090,046	
WISCONSIN.		
Lac Court Orellie..... (Under Hayward School.) Tribe: Lac Court Orellie Band of Chippewa of Lake Superior.	540	Treaty of Sept. 30, 1854, vol. 10, p. 1109; lands withdrawn by General Land Office, Nov. 22, 1860, Apr. 4, 1865. (See re- port by Secretary of the Interior, Mar. 1, 1873.) Act of May 29, 1872, vol. 17, p. 190. 68,511 acres allotted to 872 Indians. Act of Feb. 3, 1903, vol. 32, p. 795. (See 95927-1915.)
Lac du Flambeau..... (Under Lac du Flambeau School.) Tribe: Lac du Flambeau Band of Chippewa of Lake Superior.	24,424	Treaty of Sept. 30, 1854, vol. 10, p. 1109, lands selected by Indians. (See report of Supt. Thompson, Nov. 14, 1863, and report to Secretary of the Interior, June 22, 1866. De- partment order of June 28, 1866. Act of May 29, 1872, vol. 17, p. 190. 45,756 acres allotted to 600 Indians; act of Feb. 3, 1903 (32 Stats., 795), leaving unallotted 24,424 acres.
La Pointe (Bad River)..... (Under La Pointe Agency.) Tribe: La Pointe Band of Chippewa of Lake Superior.	46,613	Treaty of Sept. 30, 1854, vol. 10, p. 1109. 368.91 acres patented under art. 10; 195.71 acres fishing ground. 83,571 acres allot- ted to 1,063 Indians. (See letter to General Land Office, Sept. 17, 1859, and letter book 381, p. 49.) Acts of Feb. 11, 1901 (31 Stats., 766), and Mar. 2, 1907 (34 Stats., 1217), leaving unallotted and unreserved 46,613 acres.
Potawatomi..... (Under Carter School.)		Act June 30, 1913 (38 Stats., 77-102), which authorized the purchase of land in Wisconsin and Michigan for \$150,000.
Red Cliff..... (Under Red Cliff Agency.) Tribe: La Pointe Band (Buffalo Chief) of Chip- pewa of Lake Superior.		Treaty of Sept. 30, 1854, vol. 10, p. 1109; Executive order, Feb. 21, 1856. (See Indian Office letters of Sept. 3, 1858, and May 25, 1863, and General Land Office letter of May 27, 1863. See Executive orders. See report of Supt. Thomp- son, May 7, 1863. Lands withdrawn by General Land Office May 8 and June 3, 1863.) 2,535.91 acres allotted to 35 Indians under treaty; of the residue 11,566.90 acres were allotted to 169 Indians under joint resolution of Feb. 20, 1895, vol. 28, p. 970, and 40.10 acres were reserved for school purposes.
Menominee..... (Under Keshena School.) Tribe: Menominee.	231,680	Treaties of Oct. 18, 1848, vol. 9, p. 982; of May 12, 1854, vol. 10, p. 1004, Feb. 11, 1866, vol. 11, p. 679, and May 18, 1916 (39 Stats., 123-153).
Oneida..... (Under Oneida School.) Tribe: Oneida.		Treaty of Feb. 3, 1838, vol. 7, p. 566. 65,428.13 acres allotted to 1,502 Indians; remainder, 84.08 acres, reserved for school purposes.
Stockbridge..... (Under Keshena School.) Tribe: Stockbridge and Munsee.		Treaties of Nov. 24, 1848, vol. 9, p. 136; Feb. 5, 1856, vol. 11, p. 663, and of Feb. 11, 1866, vol. 11, p. 679; act of Feb. 6, 1871, vol. 16, p. 404. (For area, see act of June 22, 1874, vol. 18, p. 174.) 167 Indians allotted 8,920 acres. Patents in fee, act June 21, 1906 (34 Stat., 382). Act of Mar. 3, 1893 (27 Stat., 744).
Total.....	303,267	

1 Partly surveyed.

2 Surveyed.

3 Outboundaries surveyed.

TABLE 6.—General data for each Indian reservation, under what agency or school, tribes occupying or belonging to it, area not allotted or specially reserved, and authority for its establishment, to June 30, 1917—Continued.

Name of reservation and tribe.	Area (unallotted).	Treaties, laws, or other authorities relating to reserves.
WYOMING.		
Wind River..... (Under Shoshone School.) Tribes: Northern Arapaho and Eastern Band of Shoshoni.	Acres. 584,940	Treaty of July 3, 1868, vol. 15, p. 673; acts of June 22, 1874, vol. 18, p. 166, and Dec. 15, 1874, vol. 18, p. 291; Executive order, May 21, 1887. Agreement made Apr. 21, 1896, amended and accepted by act of June 7, 1896 (vol. 30, p. 93); amendment accepted by Indians July 10, 1897. (See Land Div. letter book 359, p. 468.) Act of Mar. 3, 1905, ratifying and amending agreement with Indians of Apr. 21, 1904. (See vol. 33, p. 1016.) President's proclamation June 2, 1906, opening ceded part to settlement. It contained 1,472,844.15 acres. (See letter book 886, p. 157.) Reserved for Mail Camp, 120 acres; reserved for Mail Camp Park, 40 acres; reserved for bridge purposes, 40 acres. Subject to disposition under President's proclamation, 1,438,633.66 acres. 246,822 acres were allotted to 2,401 Indians, and 1,792.05 acres were reserved for agency, school, church, and cemetery purposes, under acts of Feb. 8, 1887 (24 Stats., 388), as amended by act of Feb. 28, 1891 (26 Stats., 794), and treaty of July 3, 1868 (15 Stats., 673), leaving unallotted and unreserved 584,940 acres. Act of Aug. 21, 1914 (39 Stat., 511), mining, oil, and gas lands.
Total.....	584,940	
Grand total.....	35,775,829	

¹ Partly surveyed.

TABLE 7.—Lands set apart during fiscal year ended June 30, 1917, for temporary use and occupancy by mission organizations.

States and reservations.	Organization.	Act and citation.	Warrant for action.	Acres.
Arizona:				
Navajo.....	Bureau of Catholic Indian Missions...		Policy...	40.00
Do.....	St. Michael's Catholic Mission.....		do.....	10.00
Pima (Gila River)....	Franciscan Fathers of Arizona.....		do.....	12.50
San Xavier (Vamori Papago Village)....	Board of Home Missions of Presbyterian Church in the United States of America.		do.....	5.00
Western Navajo.....	General Conference of Mennonites of North America.		do.....	1.88
Minnesota: Nett Lake....	Bureau of Catholic Indian Missions...		do.....	.08
Nevada: Western Shoshone.	Board of Home Missions of Presbyterian Church in the United States of America.		do.....	4.98
Washington: Colville....	Roman Catholic Mission.....	Mar. 22, 1906 (34 Stat. L., 62).	do.....	12.50
Total.....				86.94

TABLE 8.—Patents in fee issued to mission organizations during fiscal year ended June 30, 1917.

States and reservations.	Organization.	Act.	Citation.	Acres.
Minnesota: Nett Lake..	Northern Minnesota Conference of the Methodist Episcopal Church.	May 18, 1916	39 Stat.....	40.00
Nebraska: Winnebago..	Woman's Board of Domestic Missions, Reformed Church in America.	Mar. 3, 1909	35 Stat., 814...	15.00
North Dakota: Fort Berthold.	Bureau of Catholic Indian Missions....	do.....	do.....	160.00
South Dakota:				
Cheyenne River.....	Domestic and Foreign Missionary Society of the Protestant Episcopal Church in the United States of America.	May 29, 1906 or Mar. 3, 1909.	Stat..... 35 Stat., 814...	10.00
Rosebud.....	American Missionary Association.....	Mar. 3, 1909	do.....	122.32
Total.....				357.32

TABLE 9.—*Indians engaged in industries other than farming and stock raising during fiscal year ended June 30, 1917.*

States and superintendencies.	Industry.	Number engaged.	Value of products.
Total, 1917.....		26,667	\$1,315,112
1916.....		26,966	1,208,826
1915.....		27,927	1,177,600
1914.....		22,968	1,194,185
1913.....		24,490	1,316,208
1912.....		22,564	1,311,335
1911.....		21,285	847,456
1910.....			177,169
1890.....			121,374
Arizona.....		8,208	460,865
Camp Verde.....	Basket making.....	60	450
	Woodcutting.....	3	75
Total.....		63	525
Colorado River.....			
	Basket making.....	20	800
	Beadwork.....	75	1,500
	Woodcutting.....	120	15,000
Total.....		215	17,000
Fort Apache.....			
	Basket making.....	40	600
	Beadwork.....	26	50
	Woodcutting.....	200	4,300
Total.....		266	4,850
Havasupai.....			
	Basket making.....	40	600
	Woodcutting.....	12	140
Total.....		52	740
Kaibab.....			
	Basket making.....	5	100
Leupp.....			
	Blanket weaving.....	450	18,800
	Woodcutting.....	50	750
	Others.....	100	5,000
Total.....		600	24,550
Moqui.....			
	Basket making.....	75	900
	Blanket weaving.....	250	20,577
	Pottery.....	30	600
	Woodcutting.....	60	1,268
	Others.....	635	63,255
Total.....		1,050	86,000
Navajo ¹.....			
	Blanket weaving.....	750	190,000
	Woodcutting.....	60	55,000
Total.....		810	245,000
Pima ¹.....			
	Basket making.....	1,050	10,500
	Pottery.....	200	350
	Woodcutting.....	450	7,500
Total.....		1,700	18,350
Salt River.....			
	Basket making.....	125	2,700
	Pottery.....	7	150
	Woodcutting.....	300	9,500
Total.....		433	12,350
San Carlos.....			
	Basket making.....	150	500
	Beadwork.....	100	150
	Woodcutting.....	200	11,300
Total.....		450	11,850
San Xavier.....			
	Basket making.....	700	7,000
	Pottery.....	50	400
	Woodcutting.....	400	26,000
	Others.....	12	600
Total.....		1,162	44,000

¹ 1916 report.

TABLE 9.—Indians engaged in industries other than farming and stock raising during fiscal year ended June 30, 1917—Continued.

States and superintendencies.	Industry.	Number engaged.	Value of products.
Arizona—Continued.			
Truxton Canon.....	Basket making.....	30	\$200
	Woodcutting.....	30	3,000
	Others.....	108	3,400
Total.....		168	6,600
Western Navajo.....	Basket making.....	75	250
	Blanket weaving.....	1,000	15,000
	Woodcutting.....	40	900
	Others.....	125	1,500
Total.....		1,240	17,650
California.....		1,306	34,990
Bishop.....	Basket making.....	30	600
	Beadwork.....	10	200
	Woodcutting.....	25	3,600
Total.....		65	3,800
Campo.....	Woodcutting.....	6	800
Digger.....	Basket making.....	8	140
Fort Bidwell.....	Basket making.....	50	500
	Beadwork.....	20	250
	Others.....	35	800
Total.....		105	1,550
Fort Yuma.....	Beadwork.....	30	2,000
	Pottery.....	6	1,200
	Woodcutting.....	125	5,000
	Others.....	2	1,000
Total.....		163	9,200
Greenville ¹	Basket making.....	60	300
	Beadwork.....	10	80
	Fishing.....	150	700
	Woodcutting.....	130	500
Total.....		350	1,580
Hoopa Valley.....	Basket making.....	75	1,000
	Fishing ¹	200	1,000
	Woodcutting.....	40	2,000
	Others.....	5	1,000
Total.....		320	5,000
Malki.....	Basket making.....	20	205
	Woodcutting.....	31	3,320
Total.....		51	3,525
Pala.....	Basket making.....	47	1,490
	Lace making.....	21	75
	Pottery.....	5	33
	Woodcutting.....	12	450
	Others.....	1	12
Total.....		86	2,060
Soboba.....	Basket making.....	35	906
	Lace making.....	31	1,673
	Pottery.....	2	4
	Woodcutting.....	35	2,128
	Fishing.....	1	150
	Others.....	4	1,560
Total.....		108	6,423

¹ 1916 report.¹ Overestimated last year.

TABLE 9.—*Indians engaged in industries other than farming and stock raising during fiscal year ended June 30, 1917—Continued.*

States and superintendencies.	Industry.	Number engaged.	Value of products.
California—Continued.			
Tule River.....	Basket making.....	24	\$192
	Woodcutting.....	20	720
Total.....		44	912
Idaho.....		255	38,000
Coeur d'Alene.....	Beadwork.....	8	200
	Woodcutting.....	25	10,000
	Others.....	7	15,100
Total.....		40	25,300
Fort Hall.....	Basket making.....	20	200
	Beadwork.....	45	600
	Others.....	150	12,500
Total.....		215	13,300
Iowa.....		70	2,750
Sac and Fox.....	Beadwork.....	25	250
	Others.....	45	2,500
Total.....		70	2,750
Kansas: Potawatomi.....	Others.....	3	3,100
Michigan.....		480	15,200
Mackinac.....	Basket making.....	35	300
	Beadwork.....	25	300
	Fishing.....	110	3,000
	Woodcutting.....	75	2,000
	Others.....	235	9,600
Minnesota.....		2,486	75,462
Grand Portage.....	Fishing.....	20	6,000
	Woodcutting.....	6	116
	Others.....	78	4,000
Total.....		104	10,116
Leech Lake.....	Beadwork.....	100	2,000
	Lace making.....	25	531
	Fishing.....	400	7,500
	Woodcutting.....	50	1,500
	Others.....	600	17,700
Total.....		1,175	29,231
Nett Lake.....	Woodcutting.....	5	315
	Others.....	112	2,500
Total.....		117	2,815
Pipestone (Birch Cooley).....	Others.....	5	1,500
Red Lake.....	Beadwork.....	125	1,000
	Fishing.....	250	8,000
	Woodcutting.....	50	4,500
Total.....		425	13,500
White Earth.....	Basket making.....	50	100
	Beadwork.....	100	3,000
	Lace making.....	10	200
	Fishing.....	300	5,000
	Woodcutting.....	200	10,000
Total.....		660	18,300

TABLE 9.—*Indians engaged in industries other than farming and stock raising during fiscal year ended June 30, 1917—Continued.*

States and superintendencies.	Industry.	Number engaged.	Value of products.
Montana.....		487	\$42,000
Blackfeet.....	Woodcutting.....	25	5,000
Crow.....	Others.....	2	(¹)
Flathead.....	Basket making.....	4	100
	Beadwork.....	48	3,000
	Fishing.....	4	600
	Woodcutting.....	11	4,400
	Others.....	33	8,000
Total.....		100	16,100
Fort Belknap.....	Woodcutting.....	30	2,100
Fort Peck.....	Beadwork.....	35	\$75
	Woodcutting.....	45	1,700
	Others.....	65	16,000
Total.....		145	18,075
Tongue River.....	Beadwork.....	160	425
	Woodcutting.....	25	900
Total.....		185	1,325
Nebraska.....		73	30,280
Omaha.....	Others.....	12	9,080
Santee.....	do.....	61	30,200
Nevada.....		396	8,655
Fort McDermitt.....	Woodcutting.....	25	900
	Others.....	31	455
Total.....		56	1,355
Mojave River.....	Basket making.....	15	750
	Others.....	1	75
Total.....		16	825
Nevada.....	Basket making.....	30	500
	Beadwork.....	30	500
	Fishing.....	50	2,000
	Others.....	4	² 1,000
Total.....		114	3,500
Walker River.....	Basket making.....	100	1,000
	Beadwork.....	50	100
	Fishing.....	50	1,500
Total.....		200	2,600
Western Shoshone.....	Basket making.....	10	75
New Mexico.....		4,399	180,875
Jicarilla.....	Basket making.....	30	800
	Beadwork.....	40	225
	Woodcutting.....	12	400
Total.....		102	1,425
Mescalero.....	Basket making.....	30	600
	Beadwork.....	30	250
	Woodcutting.....	50	1,400
	Others.....	25	150
Total.....		135	2,400
Pueblo Bonito ³	Woodcutting.....	50	10,000

¹ Unknown.² Estimated.³ 1916 report.

TABLE 9.—Indians engaged in industries other than farming and stock raising during fiscal year ended June 30, 1917—Continued.

States and superintendencias.	Industry.	Number engaged.	Value of products.
New Mexico—Continued.			
Pueblo day schools.....	Basket making.....	12	\$500
	Beadwork.....	97	1,760
	Blanket weaving.....	28	1,680
	Lace making.....	140	900
	Pottery.....	1,550	12,000
	Woodcutting.....	32	2,000
	Others.....	8	2,360
Total.....		1,867	21,160
San Juan.....	Basket making.....	25	1,200
	Blanket weaving.....	2,000	120,000
Total.....		2,025	\$ 120,200
Zuni.....	Beadwork.....	80	300
	Pottery.....	109	500
	Woodcutting.....	60	4,000
Total.....		210	4,700
Oklahoma.....		399	9,920
Cantonment.....	Beadwork.....	200	(*)
	Woodcutting.....	15	(*)
Total.....		215	(*)
Kiowa.....	Woodcutting.....	30	3,000
	Others.....	4	1,920
Total.....		34	4,920
Segu.....	Beadwork.....	150	5,000
Oregon.....		2,267	109,175
Klamath.....	Basket making.....	200	1,000
	Woodcutting.....	10	2,150
Total.....		210	3,150
Roseburg.....	Fishing.....	300	3,000
	Woodcutting.....	350	1,200
	Others.....	1,150	150,000
Total.....		1,800	159,200
Silet.....	Basket making.....	20	300
	Beadwork.....	10	100
	Lace making.....	14	200
	Woodcutting.....	8	528
	Others.....	30	1,200
Total.....		82	2,328
Warm Springs.....	Beadwork.....	50	500
	Woodcutting.....	50	3,000
	Others.....	75	1,000
Total.....		175	4,500
South Dakota.....		435	8,073
Crow Creek.....	Beadwork.....	60	250
Flandreau.....	do.....	6	200
	Others.....	5	500
Total.....		11	700
Lower Brule.....	Beadwork.....	28	50
Pine Ridge.....	do.....	312	6,100
	Others.....	24	973
Total.....		336	7,073

* Estimated.

* 1916 report.

* Unknown.

TABLE 9.—*Indians engaged in industries other than farming and stock raising during fiscal year ended June 30, 1917—Continued.*

States and superintendencies.	Industry.	Number engaged.	Value of products.
Utah.....		127	\$3,715
Goshute.....	Basket making.....	32	1 75
	Beadwork.....	32	1 100
Total.....		64	175
Shivwits.....	Basket making.....	22	160
	Woodcutting.....	15	1,680
Total.....		37	1,840
Uintah and Ouray.....	Basket making.....	5	100
	Beadwork.....	15	1,000
	Woodcutting.....	6	600
Total.....		26	1,700
Washington.....		1,395	143,547
Colville.....	Basket making.....	58	780
	Beadwork.....	65	650
	Woodcutting.....	27	4,000
	Others.....	12	17,740
Total.....		162	23,150
Cushman.....	Basket making.....	48	742
	Fishing.....	22	750
	Woodcutting.....	6	1,000
	Others.....	20	700
Total.....		96	3,192
Neah Bay.....	Basket making.....	140	3,708
	Fishing.....	92	28,738
	Woodcutting.....	1	75
	Others.....	48	12,000
Total.....		281	44,516
Spokane.....	Woodcutting.....	25	2,400
Taholah.....	Basket making.....	74	2,500
	Fishing.....	90	13,508
	Woodcutting.....	13	353
	Others.....	22	575
Total.....		199	16,931
Tulalip.....	Basket making.....	30	350
	Fishing.....	51	11,974
	Woodcutting.....	57	32,334
	Others.....	24	1,200
Total.....		162	45,858
Yakima.....	Basket making.....	50	400
	Beadwork.....	300	1,600
	Fishing.....	100	1,000
	Woodcutting.....	20	4,500
Total.....		470	7,500
Wisconsin.....		3,721	60,505
Grand Rapids.....	Basket making.....	25	650
	Beadwork.....	10	40
	Fishing.....	10	650
	Woodcutting.....	35	1,400
	Others.....	300	2,000
Total.....		380	4,740
Hayward.....	Basket making.....	60	525
	Fishing.....	450	600
	Woodcutting.....	50	2,000
	Others.....	675	2,025
Total.....		1,235	5,150

1 Estimated.

TABLE 9.—*Indians engaged in industries other than farming and stock raising during fiscal year ended June 30, 1917—Continued.*

States and superintendencies.	Industry.	Number engaged.	Value of products.
Wisconsin—Continued.			
Keshena.....	Basket making.....	20	\$100
	Beadwork.....	20	200
	Fishing.....	50	400
	Woodcutting.....	100	6,000
	Others.....	387	3,000
Total.....		557	9,700
Le lac du Flambeau.....	Basket making.....	150	1,500
	Beadwork.....	300	2,500
	Fishing.....	300	1,020
	Woodcutting.....	75	7,500
	Others.....	500	2,790
Total.....		1,325	15,310
La Pointe.....	Basket making.....	5	100
	Beadwork.....	10	325
	Fishing.....	5	6,000
	Woodcutting.....	6	2,000
	Others.....	10	12,000
Total.....		36	10,425
Oneida.....	Basket making.....	50	1200
	Lace making.....	75	2,500
	Others.....	3	(¹)
Total.....		128	2,700
Red Cliff.....	Basket making.....	1	
	Beadwork.....	3	50
	Lace making.....	10	100
	Fishing.....	15	6,000
	Woodcutting.....	10	6,000
	Others.....	21	320
Total.....		60	12,480
Wyoming.....		160	8,800
Shoshone.....	Beadwork.....	50	(¹)
	Woodcutting.....	50	1,800
	Others.....	60	7,000

RECAPITULATION.

Total.....	Basket making.....	4,091	47,935
	Beadwork.....	2,859	36,870
	Blanket weaving.....	4,478	365,727
	Fishing.....	3,020	114,065
	Lace making.....	326	6,179
	Pottery.....	1,950	15,237
	Woodcutting.....	4,084	308,199
	Others.....	5,849	420,880
Grand total.....		26,657	1,315,112

¹ Estimated.² Not reported.³ Unknown.

TABLE 10.—Incomes of Indians (by reservations), including tribal incomes, fiscal year ended June 30, 1917.

States and superintendencies.	Population.	Total.	Crops raised by Indians.	Stock sold.	Native industries, weaving, basketry, etc.	Value of timber cut.	Wages earned.	Rations and miscellaneous issues.	From individual leases.	Proceeds of sales of land.	Interest on trust fund.	Treaty and agreement obligations.	Indian money, proceeds of labor and miscellaneous.
Total, 1917.	309,409	385,967,698	\$7,990,796	\$2,324,318	\$1,315,112	\$1,496,139	\$2,596,957	\$357,266	18,888,281	\$6,917,752	\$1,698,054	\$725,860	\$6,312,571
1916	307,717	385,496,948	5,283,719	2,965,069	1,205,826	1,137,061	2,374,377	491,028	2,075,028	3,421,835	1,779,115	680,560	4,664,766
1915	306,911	385,198,046	4,790,968	2,114,028	1,177,000	1,446,021	2,379,379	494,028	2,075,028	3,421,835	1,779,115	680,560	4,664,766
1914	307,447	384,704,074	4,007,368	1,999,038	1,194,186	1,925,066	2,127,403	576,212	2,486,034	4,312,812	1,777,643	680,560	5,071,711
1913	308,340	385,349,494	4,021,892	1,726,900	1,216,298	1,605,011	2,036,124	427,458	2,486,034	4,312,812	1,777,643	680,560	5,071,711
1912	308,980	385,369,368	3,430,368	1,571,795	1,211,453	1,605,011	2,036,124	427,458	2,486,034	4,312,812	1,777,643	680,560	5,071,711
1911	306,326	385,369,368	3,430,368	1,571,795	1,211,453	1,605,011	2,036,124	427,458	2,486,034	4,312,812	1,777,643	680,560	5,071,711
1910	307,422	385,369,368	3,430,368	1,571,795	1,211,453	1,605,011	2,036,124	427,458	2,486,034	4,312,812	1,777,643	680,560	5,071,711
1890	267,422	3,307,285	1,507,072	(c)	137,374	136,450	(c)	1,371,000	106,940	(c)	1,475,339	2,702,949	2,031,015
1880	260,437	3,307,285	1,507,072	(c)	137,374	136,450	(c)	1,371,000	106,940	(c)	1,475,339	2,702,949	2,031,015
Arizona.	44,617	2,304,663	844,501	1,178,768	490,865	104,475	461,552	89,965	846				273,721
Campo Verde	439	26,827	1,800	187	825		28,240	75					5,201
Colorado River	1,207	163,831	73,112		17,000		63,865	2,807	846				87,946
Fort Apache	2,609	210,966	61,460	28,240	4,850	14,580	26,008	3,438					
Havasupai	2,173	8,356	3,012	1,000	1,000	14,139	3,133	332					
Kalab	95	6,541	1,200	1,000	100		4,187	54					
Leupp	1,536	84,498	8,100	36,128	24,250		12,961	3,069					
Mohave	4,200	163,012	40,000	22,980	86,000	1,268	12,961	3,069					
Navajo	12,080	1,357,241	141,200	915,000	246,000	8,086	41,136	3,015					34,589
Phoenix		22,327					22,327						
Pima	6,283	273,219	136,760	24,080	18,350	31,750	87,328	2,001					
Salt River	1,282	283,640	283,640	16,800	12,800	30,000	2,659	2,659					
San Carlos	2,659	265,601	11,617	9,068	11,860	10,678	68,716	17,010					166,223
San Xavier	6,112	407,600	128,960	114,638	44,000	42,700	76,499	1,507					
Truxton Canon	4,457	36,964	600	1,062	6,000		11,123	1,511					18,499
Western Navajo	6,565	46,975	10,080	10,137	17,680		6,649	2,439					
California.	10,363	784,581	266,114	37,780	34,990	4,373	338,955	7,270	7,547	44,656			2,798
Bishop	1,000	21,812	18,900		3,800		3,680	302	150				
Campo	283	28,469	12,066			880	3,476	279					
Digger	299	19,000	1,235	76	1,560	1,000	16,800	810					
Fort Bidwell	766	20,901	11,600		1,560		4,483	547	1,173				81
Fort Yuma	683	118,789	62,076	4,420	9,200		39,807	1,099	1,118	2,163			
Greenville	639	118,783			1,850		118,923	180					
Hopkins Valley	1,269	68,589	20,527	9,275	6,000	1,009	26,787	991					
Malibu	1,629	68,589	14,860	3,608	2,886		26,787	991					
Pala	1,022	110,873	76,941	6,555	2,000	323	22,570	284					
Round Valley	1,700	69,487	12,566	1,150			2,439	704	6,310	42,494			2,745

Sherman Institute	17,288							17,288	431	2,500	20,988	60,027	17,045	4,728
Soboba	75,082	32,525	5,922	6,428	452			35,199	486					
Tule River	440	16,831	5,365	912	10			5,369						
Colorado	898	151,670	14,380					19,721	11,395					
Southern Ute	373	70,109	16,180					5,451	5,417	2,500	9,950	24,527	5,978	151
Ute Mountain	525	51,584	20,200					14,270	5,888		11,115	35,470	10,078	4,545
Florida: Seminole	586	47,000	38,000					9,000						
Idaho	4,168	1,156,576	418,501	38,000	26,844			24,519	8,504	488,366	28,684	5,042	5,000	8,087
Coeur d'Alene	836	470,196	143,750	25,200	26,071			15,542		182,745	28,684	5,932	5,000	282
Fort Hall	1,769	264,360	120,958	13,200				12,066	8,504	24,353		110		2,801
Fort Lapwai	1,573	401,020	188,768		778			5,011		261,260				5,064
Iowa: Sac and Fox	300	44,869	13,008	2,750	1,304			5,178				20,270		1,224
Kansas	1,421	422,652	268,268	3,100				13,186		82,080	4,728	7,068	200	
Haskell Institute		7,795						7,795						
Kickapoo	640	260,667	172,927					4,083		29,260		772	300	
Potawatomi	781	164,260	86,866	3,100				1,820		82,800	4,728	6,521		
Michigan	1,097	24,141		16,300	862			5,684	400			26		1,940
Macinac	1,097	19,051	(*)	16,300	862			574	400					1,940
Mount Pleasant		5,110						5,110						
Minnesota	11,777	1,979,379	264,570	75,462	102,980			101,213	8,444	4,513	1,051,574	268,022	4,000	8,079
Fond du Lac	1,056	218,510	38,460		69,849			4,100	351		82,965	28,089		16
Grand Trage	1,056	26,680	5,080	10,110				1,199	1,531		24,113	5,940		17
Neotoma	1,770	347,789	3,100	29,231	62,177			26,371	1,187	46	168,500	45,189		57
Neotoma (Birch)	607	90,243	2,300	2,510				4,406	1,180		83,224	17,279		36
Neotoma (Cedar)	180	13,009	1,987	1,500				9,227	678	300				
Red Lake	1,492	305,365	46,456	13,000	1,362			32,156	17		149,118	37,409		7,945
Vermilion Lake	5,371	944,000	140,000	15,300	26,374			4,200		3,968	570,400	158,865	4,000	549
White Earth								19,600	3,513					
Montana	11,525	3,500,787	1,204,065	42,000	58,289			157,285	72,212	224,268	644,510	9,423	80,264	230,540
Blackfoot	2,752	544,097	143,420	5,000	3,525			38,195	84,527	30,994		3,415		29,980
Crow	1,710	874,497	112,570	37,023	158			40,784		77,131		6,000		245,010
Flathead	3,410	1,058,176	615,068	14,100	31,501			15,659	1,980	54,513				16,812
Fort Belknap	1,206	1,122,794	77,069	2,100	28,700			17,728	3,770			6		5,421
Fort Peck	1,968	645,473	199,268	15,075				50,910	10,117	61,620				15,264
Tongue River	1,461	240,700	55,000	1,528	60			27,189	20,943				74,264	26,162

* Includes moneys for other Indians.

† 1916 report.

† Does not include \$92,957, which is duplicated in farming and grazing tables.

* Unknown.

TABLE 10.—*Incomes of Indians (by reservations), including tribal incomes, fiscal year ended June 30, 1917—Continued.*

States and superintendencies.	Population.	Total.	Crops raised by Indians.	Stock sold.	Native industries, weaving, basketry, etc.	Value of timber cut.	Wages earned.	Rations and miscellaneous issues.	From individual leases.	Proceeds on trust fund.	Interest on trust fund.	Treaty and agreements on obligations.	Indian moneys, proceeds of labor and miscellaneous.
Nebraska.....	3,617	\$684,377	\$267,550		\$39,290		\$20,404	\$1,948	\$320,207	\$1,374	\$6,943	\$20,600	\$9,061
Genoa.....		6,180					6,180						
Omaha.....	1,318	350,272	179,050		9,060		2,040		103,000	1,374	1,038	20,600	3,635
Santee.....	1,104	27,800	27,800		30,200		4,500	1,948	16,482		674		1,063
Winnebago.....	1,106	216,080	61,000				7,768		140,755		5,176		1,384
Nevada.....	7,944	281,176	103,253	\$26,487	8,645		119,180	7,222	1,478				14,6
Carson.....		10,565					10,565						
Fallon.....	429	34,685	9,800	720			22,175						2,180
Fort McDermitt.....	360	86,035	3,200		1,355		26,256	472					1,763
Moapa River.....	120	26,946	28,750	175	826		4,452	160					884
Nevada.....	614	28,914	14,109	998	3,800		3,874	3,053					3,330
Walker River.....	708	75,921	27,740	2,667	2,000		39,268	92	250				3,406
Western Shoshone.....	638	63,375	24,953	20,027	75		9,592	2,388					3,340
Reno, special agent.	5,100	2,135	(1)					907	1,228				
New Mexico.....	20,883	1,335,066	337,186	201,845	189,873	\$85,622	194,244	17,384	7,866			100,000	21,633
Albuquerque.....		10,692					10,692						
Jicarilla.....	645	168,615	8,765	12,375	1,426		26,823	6,603	7,866				14,080
Mescalero.....	677	86,831	26,220	11,800	2,400		9,116	8,694					7,323
Pueblo.....	2,724	46,128	3,400		10,000		4,000	2,180					168
Pueblo day schools.....	3,700	545,786	302,917	121,870	21,180		94,945	1,732				29,000	400
San Juan.....	6,384	315,223	300,500		120,200	5,000	21,507	1,205				67,000	10
Santa Fe.....	11,211						11,211						
Zuni.....	1,838	151,041	101,384	55,900	4,700	5,624	13,635						
New York: New York.....	5,912	22,750	(1)				208				2,228	10,500	9,319
North Carolina: Cherokee.....	2,282	70,223	42,780	6,945		1,704	18,368	47			484		
North Dakota.....	8,908	1,385,991	451,124	100,370		3,400	83,610	23,461	129,153	440,876	37,579	70,040	20,063
Blumenthal.....		2,245					2,245						
Fort Berthold.....	1,182	377,901	57,523	42,685			20,511	3,040	51,675	169,001	13,264	16,480	14,709
Fort Totten.....	1,622	213,530	153,857				30,223	15,494	30,223	1,189		4,000	4,327
Standing Rock.....	3,455	600,992	132,414	57,675			36,980	13,494	31,990	270,676	24,335	53,590	4,649
Turtle Mountain.....	3,264	128,137	107,310				8,121	1,977	15,191				188
Washington.....		3,157					3,157						

Oklahoma.	116,419	13,136,351	980,278	261,355	9,920	145	208,119	1,401,679	4,186,863	782,404	59,120	5,945,468
Cantonment Cheyenne and Arap- aho.	788	77,387	89,175	1,260			9,983	80,000				
Chillicothe.	1,262	288,776	91,801				10,019	128,638	32,013	25,348		3,059
Crows.	13,631	13,631					13,631					
Keweenaw.	4,554	1,067,678	595,240		4,920		272,778	607,085	80,577	140,056		7,011
Osage.	2,180	5,980,898	181,600	207,500			12,280	270,822	46,281	261,804		5,001,561
Ojibwa.	5,113	15,457,941	381,600	207,240			12,280	61,831		20,794		
Pawnee.	7,114	148,467	18,094			120	7,611	83,035		8,572		145
Ponca.	1,045	173,327	52,812	739		25	3,240	110,167		47,100		452
Saco and Fox.	1,652	116,802	48,428	1,388			3,948	46,721		19,664		466
Sage.	1,763	136,937	41,163	1,388			3,857	86,917				390
Sawnee.	1,668	97,968	49,267	40,226	5,000		7,140	62,106		68	1,600	115
Shawnee.	1,757	142,891	68,220							5,010		
Total.	14,913	8,354,115	980,278	251,355	9,920	145	102,868	1,361,333	188,921	477,208	48,400	5,013,957
Total Five Civilized Tribes.	101,806	4,771,226					105,751	40,346	4,027,942	265,196	10,330	331,451
Five Civilized Tribes.	138,516						95,170	40,346		2,363		
Cherokee Nation.	41,584	3,377										
Chickasaw Na- tion.	10,966	1,118,332							1,022,248	31,191		94,592
Choctaw Nation.	26,828	3,372,810					10,881		3,004,100	104,711	10,320	242,392
Creek Nation.	18,761	98,390							30,965	76,336		3,096
Seminole Nation.	3,127	41,822							20,624	40,589		8,000
Oregon.	11,612	962,590	356,363	117,970	166,175	74,810	37,077	2,494	129,656	7,961	14,016	52,868
Klamath.	1,160	294,320	53,300	83,000	3,150	70,164	11,668	679	16,917	4,794		46,633
Roseburg.	8,000	161,632	(¹)	169,200				1,127	960			
Salmon.		8,696		2,395			8,696	300				
Siletz.	437	28,914	19,149					2,460	6,337	1,793		22
Umatilla.	1,197	395,997	292,160	22,800		4,646	5,920	109,130	2,684	7,460		1,777
Warm Springs.	1,818	67,031	40,764	12,170	4,800		5,219	888				300
Pennsylvania: Carlisle.		49,438					49,438					
South Dakota.	21,246	2,782,089	737,155	416,897	8,073	22,260	235,296	110,799	354,305	385,892	181,100	398,640
Canton Asylum.												
Cheyenne River.	2,753	646,264	113,580	69,060			58,573	14,113	322,660	30,520	41,300	28,468
Crow Creek.	964	163,566	40,760	61,000	760		12,112	9,248	6,023	16,480	10,370	270
Flandreau.	261	123,598	14,200	2,380	700		9,967	1,115		1,180		
Lower Brule.	504	53,466	21,000	3,400	60	1,060	2,466	1,688		1,694	8,340	215
Pierre.		2,927					3,927					
Pine Ridge.	7,247	884,946	147,085	278,987	7,073	21,300	60,673	62,260	3,967	27,368	111,340	3,062
Rapid City.		4,542					4,463					

Exclusive of Five Tribes.

1916 report.

Unknown.

TABLE 10.—*Incomes of Indians (by reservations), including tribal incomes, fiscal year ended June 30, 1917—Continued.*

States and superintendences.	Population.	Total.	Crops raised by Indians.	Stock sold.	Native industries, weaving, basketry, etc.	Value of timber cut.	Wages earned.	Rations and miscellaneous issues.	From individual leases.	Proceeds of sale of land.	Interest on trust fund.	Treaty and agreement obligations.	Indian money, proceeds of labor and miscellaneous.
South Dakota—Contd.													
Rosebud.....	5,536	\$375,570	\$170,208	.....	.....	.....	\$49,895	\$32,327	\$98,000	\$87,643	\$75,428	\$35,520	\$4,578
Sisseton.....	1,964	240,540	111,325	\$15,560	.....	.....	10,937	.....	71,560	.....	25,513	.....	1,300
Springfield.....	1,598	299,232	118,947	.....	.....	.....	6,022	272	73,323	.....	10,560	28,540	1,923
Yankton.....	1,428	332,280	79,078	10,889	\$3,715	\$337	21,001	28,108	81,561	53,535	77,323	21,594	4,539
Utah.....													
Goshute.....	153	12,921	8,000	.....	175	.....	4,568	178	.....	.....	.....	.....	.....
Shivwits.....	130	7,718	2,180	.....	1,840	.....	3,174	514	.....	.....	.....	.....	.....
Uintah and Ouray.....	1,155	361,641	65,888	10,889	1,700	337	13,269	27,416	81,561	53,535	77,323	21,594	4,539
Washington.....													
.....	11,068	1,585,380	813,751	105,394	145,547	169,544	97,372	2,576	151,431	45,324	3,475	1,000	53,065
Colville.....	2,529	651,904	421,572	88,555	25,150	3,953	45,488	480	16,060	30,755	.....	.....	12,251
Cushman.....	2,132	42,828	10,720	2,510	3,192	4,150	16,568	366	1,190	603	2,475	.....	1,754
Neah Bay.....	2,697	65,967	12,900	532	44,516	75	7,726	164	.....	.....	.....	.....	4
Spokane.....	603	51,876	34,344	2,855	2,400	724	3,653	159	1,830	2,966	.....	1,000	936
Taholah.....	768	25,839	5,958	.....	16,831	.....	1,724	1,097	.....	.....	.....	.....	149
Tulalip.....	1,359	235,722	94,777	9,823	45,558	158,666	9,413	63	4,101	.....	.....	.....	4,047
Yakima.....	3,000	420,244	285,500	.....	7,800	2,036	12,786	547	127,660	.....	.....	.....	26,225
Wisconsin.....													
.....	9,610	1,405,247	226,002	14,415	60,805	786,234	184,022	5,376	12	.....	120,640	.....	57,740
Grand Rapids.....													
.....	1,372	62,220	50,725	.....	4,740	.....	.....	.....	.....	.....	.....	.....	.....
Hayward.....	1,277	92,062	14,660	1,340	5,150	34,007	25,920	985	.....	.....	.....	.....	.....
Kasheena.....	1,745	798,121	30,377	3,275	15,310	646,386	26,822	8,257	.....	.....	115,865	.....	57,000
Laos du Flambeau.....	749	32,821	10,360	.....	.....	.....	6,301	808	12	.....	.....	.....	41
Laona.....	335	8,261	6,400	.....	.....	.....	1,720	100	.....	.....	.....	.....	.....
La Pointe.....	1,046	300,654	60,200	9,800	10,425	157,131	62,807	191	.....	.....	.....	.....	.....
Menominee.....	2,575	46,815	25,200	.....	2,700	.....	5,915	.....	.....	.....	.....	.....	.....
Red Cliff.....	2,511	65,678	14,960	.....	12,450	.....	35,941	285	.....	.....	.....	.....	.....
Remond.....	.....	.....	.....	.....	.....	.....	2,917	.....	.....	.....	.....	.....	.....
Waubesa.....	.....	4,000	.....	.....	.....	.....	4,000	.....	.....	.....	.....	.....	.....
Wyoming: Shoshone.....													
.....	1,674	394,225	145,270	31,100	8,800	235	63,280	9,021	25,988	8,408	351	41,463	59,465

TABLE 11.—Use of agricultural lands belonging to Indians, fiscal year ended June 30, 1917.

States and reservations.	Area of lands.		Cultivated by Indians.		Able-bodied male adults.	Number of Indians farming.	Leased.					Total income.
	Area of lands.		Cultivated by Indians.				Allotted.			Unallotted.		
	Allotted.	Unallotted.	Allotted.	Unallotted.			Number of allotments.	Area.	Income.	Number of leases.	Area.	Income.
Total, 1917.	Acres.	Acres.	Acres.	Acres.			20,561	2,023,788	32,615,089	1,063	494,961	32,609,909
	5,313,520	981,666	539,577	137,114	43,777	30,498	22,613	2,367,543	2,605,498	1,544	492,577	2,605,710
	5,463,540	994,428	544,583	132,444	42,969	31,965	16,500	2,416,794	2,117,166	51	2,570	2,122,431
	5,523,170	999,441	552,086	132,444	42,359	29,811	()	1,970,267	()	68	4,131	2,164,319
	5,520,701	2,221,135	468,722	125,646	42,353	29,216	()	3,109,209	()	573	70,201	2,164,319
	5,775,643	2,875,108	478,053	117,279	39,561	23,061	()	2,792,799	()	46	4,951	2,787,848
	5,813,633	2,942,953	491,600	127,003	39,901	24,439	()	2,535,485	()	1,706	183,626	2,707,371
	5,811,991	2,535,328	265,080	117,945	25,544	19,753	()	2,535,485	()	53	8,421	2,537,063
	1911	()	()	()	()	()	()	()	()	()	()	()
	1900	()	()	()	()	()	()	()	()	()	()	()
1900	()	()	()	()	()	()	()	()	()	()	()	
Arizona.	57,500	183,052	34,222	42,472	10,018	15,092	226	2,260	()	()	()	
Camp Verde.												
Colorado River.	6,100	216		110	100	20	226	2,260	()	()	()	
Fort Apache.					641	105					()	
Havasupai.					55	60	226	2,260				
Kalabab.					100	16						
Leupp.					224	260						
Mogul.					1,143	2,000						
Navajo.					1,176	2,000						
Pima.					1,176	2,000						
Salt River.	40,360	26,250			810	3,000						
San Carlos.	8,040	5,373			709	288						
San Xavier.					1,435	4,610						
Truxton Canon.					127	45						
Western Navajo.					1,681	400						

* Improvements.
 † Overestimated last year.
 ‡ 1916 report.
 § Grazing land included in 1916 report.
 ¶ Not reported.
 * Included in "Total income."
 † Includes grazing leases also.
 ‡ Only items reported.
 § Families actually living upon and cultivating lands in severalty.

TABLE 11.—Use of agricultural lands belonging to Indians, fiscal year ended June 30, 1917—Continued.

States and reservations.	Area of lands.		Cultivated by Indians.		Able-bodied male adults.	Number of Indians farming.	Leased.						Total income.
	Allotted.	Unal- lotted.	Allotted.	Unal- lotted.			Allotted.			Unallotted.			
							Number of leases.	Number of allot- ments.	Area.	Income.	Number of leases.	Area.		Income.
California.....	<i>Acres.</i> 29,063	<i>Acres.</i> 31,027	<i>Acres.</i> 8,328	<i>Acres.</i> 6,779	2,973	1,701	436	508	<i>Acres.</i> 4,918	6,375			\$6,375
Bishop.....	6,000	8,000	1,200	237	493	150	1		40	50			50
Dunsmuir.....	115	835	1,40	25	34	34							
Fort Bidwell.....	1,615	1,200	1,200	25	172	46							
Fort Yuma.....	5,020	1,218	1,218	285	249	184	300	300	3,000	\$15			\$15
Greenville.....	205	1,360	1,360	205	175	150							
Hoop Valley.....	1,400	1,400	1,400	205	312	300							
Maliki.....	13,388	1,821	1,821	205	216	153							
Pala.....	\$1,685	3,490	\$1,193	\$1,471	332	268	135	208	1,878	6,310			6,310
Round Valley.....	5,388		1,672		460	83							
Soboba.....		3,283		1,220	275	236							
Tule River.....		260		1,260	120	20							
Colorado.....	6,800	35	2,500	35	183	92	8	8	2,000	1,850			1,850
Southern Ute.....	6,800		2,500		65	80	8	8	2,000	1,850			1,850
Ute Mountain.....		35		35	117	13							
Florida: Seminole.....		2,140		800	175	86							
Idaho.....	183,378	11,080	22,655	65	847	474	1,726	2,202	123,263	438,467	5	59	438,467
Conce d'Alene.....	61,120	2,000	8,340	50	220	207	260	260	41,174	182,345			182,345
Fort Hall.....	28,540	6,880	7,935	15	472	283	196	196	4,781	8,038	5	(1)	8,038
Fort Lapwai.....	85,718	2,000	6,410		185	95	1,270	1,746	77,308	247,464			247,464
Iowa: Sac and Fox.....		2,520		1,500	105	60					2	520	\$1,200
Kansas.....	51,942		15,754		288	249	537	245	37,880	62,318			62,318
Kiowa.....	22,682		4,951		138	144	270	245	19,128	29,280			29,280
Potawatomi.....	29,280		10,868		148	105	267		18,457	33,068			33,068
Michigan: Mackinac.....	670		670		290	30							

Minnesota.....	238,455	68,168	5,111	1,063	2,130	973	40	40	2,167	2,630	2,630	2,630
Food on Lac.....	14,000		1,600		248	90						
Grand Portage.....	30	2	20	2	78	11						
Leach Lake.....	6,210		3,051		465	365						
Nett Lake.....	1,026		190		148	20						
Pigeons (Birch Covey).....	600		260		33	4						
Red Lake.....		67,768		1,051	310	153						
White Earth.....	204,660	400	(1)	(1)	859	300						
Montana.....	673,307	268,390	68,260	9,060	2,514	1,631	1,068	1,303	226,970	128,362	2	400,400
Blackfoot.....	117,000	78,000	5,500		463	300						
Crow.....	153,307	18,778			390	288						
Flathead.....	120,000	66,960	35,000		601	371						
Fort Belknap.....		90,000		4,060	335	270						
Fort Peck.....	283,000		9,975		450	165						
Tongue River.....		33,400		5,020	275	1,267						
Nebraska.....	127,281	4,118	27,116	3,000	881	613	1,697	1,282	136,760	316,951		3,000
Omaha.....	58,000	3,000	12,000		293	268						
Santee.....	10,848		8,000		268	183						
Winnebago.....	58,483	1,118	7,116		330	283						
Nevada.....	15,088	23,200	3,728	1,760	2,558	655	1	1	20	150		150
Fallon.....	4,640	18	828	1	140	64						
Fort McDermitt.....	1,380	380	688	55	91	92						
Moapa River.....					38	33						
Nevada.....		21,000		620	163	200						
Walker River.....	9,768	14	1,415	14	194	91						
Western Shoshone.....		1,688	450	1,070	177	78						
Reno, special agent.....	1,760				1,765	100						
New Mexico.....	3,080	58,080	1,026	35,970	3,209	4,217						
Alamogordo.....												
Albuquerque.....	2,760	9,210	726		178	100						
Presidio.....		1,100	100	1,020	145	117						
Pueblo day schools.....	300	28,800	300	23,080	2,381	2,080						
San Juan.....		15,820		6,000	760	1,200						
Zuni.....		6,000		6,000	505	550						
New York: New York Agency.....		88,847		20,640	(15)	1,599						

* Decrease in rental caused by leases being on crop basis.
 * 1916 report included Indians helping on farms.
 * 1916 report.
 * Unknown.
 * Includes grazing leases.

1 As reported.
 2 Improvements not included.
 3 Overestimated last year.
 4 Not reported.
 5 Estimated.

TABLE 11.—Use of agricultural lands belonging to Indians, fiscal year ended June 30, 1917—Continued.

[illegible]

South Dakota.	1,488,778	44,300	70,180	1,200	4,880	3,905	2,680	1,815	109,985	127,489		127,489
Cheyenne River.	3,880		8,880		681	722	3	3	860	350		350
Crow Creek.	3,520		3,700		260	243	3	3	130	840		840
Flandreau.		1,200		1,200	70	20						
Lower Brule.	48,783		3,260		117	80						
Pine Ridge.	8,480		3,480		1,623	1,835	97	97	4,800	2,477		2,477
Rosebud.	1,261,285	44,000	17,403		1,123	700	400	338	40,000	20,000		20,000
Sisseton.	117,011		10,873		1,478	246	1,700	900	98,591	66,683		66,683
Yankton.	37,558		8,462		353	300	457	467	27,914	44,164		44,164
Utah.	70,542	11,270	8,470	80	308	308	865	783	44,700	81,386		81,386
Shivwits.		1,270		80	80	108						
Utintah and Ouray.	70,542	10,000	8,470		278	122	865	783	44,700	81,386		81,386
Washington.	309,219	38,719	48,871	580	2,071	1,208	1,265	1,310	88,422	137,191		137,191
Columbia.	109,550	26,469	34,480		585	605	198	264	18,280	15,100		15,100
Cushman.	11,776		780		185	71	8	4	185	1,180		1,180
Neah Bay.	3,493	250	300	50	188	11						
Spokane.	38,773	10,000	1,824	500	168	77	28	31	3,288	1,800		1,800
Taholah.	38,773	2,000	86		170	19	23	21	1,069	4,101		4,101
Tulalip.	12,689		2,481		318	214						
Yakima.	136,000		9,000		500	211	1,000	1,000	60,000	115,000		115,000
Wisconsin.	67,599	8,520	13,562	6,270	2,220	1,229	1	1	4	12		12
Grand Rapids.												
Hayward.		3,500		3,000	353	1,260	(?)	(?)	(?)	(?)		
Keshena.	51,800		900		339	70						
Lac du Flambeau.		3,220		3,220	406	260						
La Pointe.	457	50	457	50	134	38	1	1	4	13		13
Onesida.	5,000	1,760	2,660		(?)	141						
Red Cliff.	9,802		9,185		709	400						
	510		9,330		146	38						
Wyoming: Shoshone.	19,77,995	75,700	7,786		364	260	174	174	11,973	22,673		22,673

1 1916 report.
 2 Includes grazing leases.
 3 Not reported.
 4 Leases are made without departmental supervision.
 5 Includes Red Moon.
 6 Includes Red Moon.
 7 Includes some grazing leases.
 8 Chased as grazing land.
 9 Unknown.
 10 Overestimated last year.

Pala.....	148	9,984	35,532	9,984	208	7	7	1,215	650	4	247,560	4,075	4,735
Red Lake Valley.....	38,692	80	38,038	80	185								
Roberts.....		15,745		15,745	185						12,000	582	
Trule River.....		34,000		34,000	62								
Colorado.....	39,480	390,000	13,000	350,000	25								
Southern Ute.....	39,480		13,000		25	7	7	1,215	650				650
Ute Mountain.....		390,000		350,000							247,560	4,075	4,075
Florida: Seminole.....		22,982			82								
Idaho.....	391,204	106,119	267,718	106,119	976	597	593	116,585	19,929	25	3,757	1,513	21,447
Coeur d'Alene.....	34,855	4,579	34,855	4,579	403	11	11	1,540	400				400
Fort Hall.....	305,040	96,540	295,902	96,540	322	550	510	77,337	15,724	1 25	3,757	1,513	17,242
Fort Lapwai.....	51,309	5,000	15,901	5,000	251	7 36	42	36,408	3,905				3,905
Iowa: Sax and Fox.....		890		870	60					2	320	1,200	1,200
Kansas.....	25,519		7,871		205	236		15,785	19,723				19,723
Kickapoo.....	4,165		2,775		156			15,785	19,723				19,723
Potawatomi.....	21,354		5,096		49	236	(*)						
Michigan: Mackinac.....		(*)	(*)	(*)	30								
Minnesota.....	161,987	312,995	136,911	306,995	576	76	77	5,573	1,068				1,068
Fond du Lac.....	9,000		1,000		90								
Grand Portage.....	9,980	6,000											
Leech Lake.....	19,867		12,821		190	2	2	100	20				20
Nett Lake.....	(*)	(*)	(*)	(*)	20								
Red Lake.....	303,516		303,516		160								
White Earth.....	123,080	3,450	123,080	3,450	416	74	75	5,413	1,673				1,673
Montana.....	1,580,469	3,314,457	443,268	797,976	1,868	2,247	2,896	503,892	95,995	51	2,339,267	295,403	392,369
Blackfoot.....	795,840	595,805	290,000	121,000	965	165	784	212,494	29,533	34	218,792	11,513	41,055
Crow.....	317,229	1,593,702	75,432	226,576	213	2,000	2,000	259,533	40,865	5	1,618,126	244,753	255,018
Flathead.....	42,000	123,000	71,156	10,000	346	35	35	3,995	12,995				12,995
Fort Belknap.....	484,400	441,400	82,420	82,420	265					2	40,400	18,001	18,001
Fort Peck.....		45,680			214	47	47	29,350	22,550	9	12,946	1,068	1,068
Tongue River.....		357,960		357,960	150					1		17,250	17,250
Nebraska.....	20,347		9,300		127	94	98	11,187	3,356				3,356
Santee.....	9,153,347		4,300		44	94	98	11,187	3,356				3,356
Winnebago.....	15,000		4,500		83								

1 Includes some farming leases also.
 2 Not reported.
 3 Included in "Total Income."
 4 Includes some agricultural land.
 5 Grazing permits.
 6 1916 report.
 7 Includes grazing permits.
 8 Overestimated last year.
 9 As reported.
 10 Decrease due to leases being on crop basis.
 11 Agricultural land.

TABLE 12.—Use of grazing lands belonging to Indians, fiscal year ended June 30, 1911—Continued.

States and reservations.	Area of lands.		Grazed by Indian stock.		Indians engaged in stock raising.	Leased.						Total income.	
	Allotted.	Un- allotted.	Allotted.	Un- allotted.		Allotted.		Unallotted.					
						Number of leases.	Number of allot- ments.	Area.	Income.	Number of leases.	Area.		Income.
Nevada.....	Acres. 88,640	Acres. 627,101	Acres. 31,049	Acres. 444,806	607	10	443	Acres. 68,909	\$1,328	16	Acres. 179,000	\$12,454	\$13,782
Fallon.....	1,063	2,940	1,063	1,176	65								
Fort McDowell.....	1,260		1,260		(1)								
Mojave River.....					25								
Nevada.....	301,000		120,000		37	1	1	20	100		179,000	8,460	8,450
Walker River.....	37,834		37,834		80						(1)	9,004	9,004
Western Shoshone.....	285,317		285,787		1,000	9	443	68,880	1,328	15		9,004	1,228
Reno, special agent.....	79,000		11,409										
New Mexico.....	606,477	6,009,896	450,025	5,364,139	9,987	124	563	245,477	7,866	27	592,500	26,082	32,898
Jicarilla.....	248,477	356,647	2,025		37	124	563	245,477	7,866	16	161,280	3,532	11,898
Mescalero.....	390,000		46,110		742					9	351,280	20,000	20,000
Pueblo Bonito.....	1,800,000		445,000		3,500								
Pueblo day schools.....	499,179		454,029		1,980					2	60,000	1,500	1,500
San Juan.....	3,762,000		2,762,000		2,800								
Zuni.....	112,000		112,000		1,200								
North Carolina: Cherokee.....	157,140		157,140		450								
North Dakota.....	1,606,920	360,108	1,315,813	266,108	2,008	1,196	1,533	363,576	49,008	5	108,000	15,450	64,488
Fort Berthold.....	281,980	360,108	161,691	266,108	425	5	390	120,289	17,822	5	108,000	15,450	23,372
Fort Totten.....	61,668		84,123		200	17	748	183,293	28,079				23,089
Standing Rock.....	1,182,282		1,000,000		868	781	868	66,200	7,715				7,715
Turtle Mountain.....	176,000		101,000		550								
Oklahoma.....	1,814,075	1,000	127,081	320	1,826	7,874	4,896	798,468	517,179	1	320	192	517,371
Cantonment.....	17,315		4,124		20	20	20	18,581	7,000				7,000
Cherokee and Arapaho.....	58,511		7,680		84	964	964	76,081	12,586				12,586
Five Civilized Tribes.....	34,480				609	609	609	34,480	4,373				4,373
Kiowa.....	141,901		6,711		623	1,133	1,000	138,620	68,913				68,913
Osage.....	1,298,115	20	40,000		153	11,738	1,738	1,877,878	117,240				117,240
Ottawa.....	52,974	720	24,266		210	317	260	31,468	16,728	1	320	162	16,689
Pawnee.....	31,289		3,013		119	867	867	28,276	64,088				64,088

Pease.....	45,798	320	16,347	320	217	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	11,324	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TABLE 13.—*Employment of Indians during fiscal year ended June 30, 1917.*

States and superintendencies.	Total employed.		Indians employed by United States Indian Service.				Employed by private parties.			
			Regular employees.		Irregular employees.		Adults.		Minors or out-going pupils.	
	Number.	Earnings.	Number.	Earnings.	Number.	Earnings.	Number.	Earnings.	Number.	Earnings.
Total, 1917.....	24,982	\$2,506,957	2,137	\$979,783	12,321	\$363,878	8,215	\$1,009,935	2,259	\$153,366
1916.....	25,948	2,378,377	2,115	922,736	14,587	427,699	6,992	882,784	2,254	145,168
1915.....	25,681	2,304,339	2,533	940,013	13,968	414,422	6,899	826,218	2,281	121,686
1914.....	23,440	2,127,408	2,319	810,950	13,218	505,492	5,553	689,517	2,350	121,444
1913.....	22,793	2,065,124	2,271	762,264	12,290	414,706	5,585	778,117	2,647	110,037
1912.....	22,424	1,940,414	2,516	732,536	12,420	432,470	5,113	673,289	2,375	102,129
1911.....	11,781	1,861,630	1,965	687,039	6,582	582,919	3,204	591,672	(1)	(1)
1900.....	2,901	963,573	2,094	749,148	(*)	(*)	(*)	177,169	807	27,256
Arizona.....	5,148	461,552	321	135,415	2,320	79,973	2,077	213,535	430	32,629
Camp Verde.....	139	23,240	4	1,560	.....	.....	135	21,680	.....	.....
Colorado River.....	230	37,085	21	10,440	114	1,984	75	23,220	10	1,441
Fort Apache.....	636	25,006	36	15,808	600	9,200	.....	.....	.....	.....
Fort Mojave.....	98	26,780	5	2,290	.....	.....	93	24,500	.....	.....
Havasupai.....	78	3,133	2	600	18	138	58	2,395	.....	.....
Kaibab.....	68	4,187	2	780	54	3,107	12	300	.....	.....
Leupp.....	171	12,961	17	5,562	72	4,768	56	1,550	26	1,086
Mogul.....	59	8,188	31	7,100	28	1,068	.....	.....	.....	.....
Navajo.....	245	44,198	62	31,024	95	6,700	.....	.....	88	6,414
Phoenix.....	329	22,327	16	5,945	198	2,003	.....	.....	117	14,379
Pima.....	775	67,328	38	19,568	482	24,510	120	5,250	135	8,000
Rice Station.....	81	5,839	10	4,930	71	909	.....	.....	.....	.....
Salt River.....	538	45,131	10	3,660	10	471	518	41,000	.....	.....
San Carlos.....	614	52,877	37	15,800	500	22,267	77	13,810	.....	.....
San Xavier.....	849	75,499	12	4,378	21	371	816	70,750	.....	.....
Truxton Canon.....	162	11,123	3	600	39	1,082	117	9,080	3	360
Western Navajo.....	86	6,649	15	5,380	20	220	.....	.....	51	949
California.....	2,811	328,955	96	33,518	262	8,017	1,800	244,392	651	53,028
Bishop.....	25	3,660	7	1,672	1	8	.....	.....	17	1,980
Campo.....	45	8,475	4	1,775	.....	.....	21	4,500	20	2,200
Digger.....	52	16,500	.....	.....	.....	.....	52	16,500	.....	.....
Fort Bidwell.....	263	4,432	2	800	26	1,332	235	2,300	.....	.....
Fort Yuma.....	385	39,807	12	3,552	84	1,700	264	31,555	25	3,000
Greenville.....	498	113,962	1	1,000	9	1,037	386	84,925	90	27,000
Hoopa Valley.....	326	26,787	19	5,100	76	1,207	222	20,000	9	480
Maliki.....	350	41,617	8	2,508	4	44	293	26,240	45	2,525
Pala.....	178	22,570	12	4,100	1	750	163	17,300	2	360
Round Valley.....	52	2,439	6	1,914	46	525	.....	.....	.....	.....
Sherman Institute.....	430	17,238	9	4,500	.....	.....	.....	.....	421	13,738
Soboba.....	142	36,199	17	6,057	9	1,285	94	26,412	22	2,445
Tule River.....	77	5,269	1	540	6	129	70	4,600	.....	.....
Colorado.....	553	19,721	16	6,800	537	12,921	.....	.....	.....	.....
Southern Ute.....	96	5,451	9	3,920	87	1,531	.....	.....	.....	.....
Ute Mountain.....	457	14,270	7	2,880	450	11,390	.....	.....	.....	.....
Florida: Seminole.....	90	9,000	.....	.....	.....	.....	90	9,000	.....	.....
Idaho.....	352	34,519	34	12,920	269	9,099	49	12,530	.....	.....
Coeur d'Alene.....	69	15,542	7	2,664	12	348	49	12,530	.....	.....
Fort Hall.....	257	13,966	19	5,595	233	8,371	.....	.....	.....	.....
Fort Lapwai.....	26	5,011	8	4,661	18	350	.....	.....	.....	.....
Iowa: Sac and Fox.....	34	5,178	12	5,040	22	138	.....	.....	.....	.....
Kansas.....	121	13,198	19	10,033	11	110	.....	.....	91	3,055
Haskell Institute.....	97	7,796	6	4,740	.....	.....	.....	.....	91	3,055
Kickapoo.....	21	4,063	10	3,973	11	110	.....	.....	.....	.....
Potawatomi.....	8	1,320	3	1,320	.....	.....	.....	.....	.....	.....
Michigan.....	14	5,684	14	5,684	.....	.....	.....	.....	.....	.....
Mackinac.....	1	574	1	574	.....	.....	.....	.....	.....	.....
Mount Pleasant.....	13	5,110	13	5,110	.....	.....	.....	.....	.....	.....
Minnesota.....	879	101,218	137	62,616	592	14,382	149	24,070	4	150
Cass Lake.....	49	2,221	5	1,391	44	830	.....	.....	.....	.....
Fond du Lac.....	10	4,100	10	4,100	.....	.....	.....	.....	.....	.....

* Included with adults by private parties.

* No data available.

* 1916 report.

TABLE 13.—*Employment of Indians during fiscal year ended June 30, 1917—Contd.*

States and superintendencies.	Total employed.		Indians employed by United States Indian Service.				Employed by private parties.			
			Regular employees.		Irregular employees.		Adults.		Minors or out-going pupils.	
	Number.	Earnings.	Number.	Earnings.	Number.	Earnings.	Number.	Earnings.	Number.	Earnings.
Minnesota—Continued.										
Grand Portage.....	12	\$1,449	3	\$960	9	\$489				
Leech Lake.....	183	23,980	27	11,149	58	631	103	\$12,200		
Nett Lake.....	73	4,405	9	2,700	64	1,705				
Pipestone.....	42	9,227	12	6,960	7	387	19	1,730	4	\$150
Red Lake.....	366	32,136	32	15,036	1310	16,960	24	10,140		
Vermilion Lake.....	23	4,200	8	3,900	15	300				
White Earth.....	121	19,500	31	16,430	90	3,080				
Montana.....	1,345	187,235	166	74,582	747	47,913	432	64,740		
Blackfoot.....	150	33,105	35	14,800	182	15,215	133	13,290		
Crow.....	174	40,734	39	15,019	135	25,715				
Flathead.....	193	15,569	14	8,147	52	2,212	127	5,210		
Fort Belknap.....	267	19,728	18	6,968	34	1,910	215	10,850		
Fort Peck.....	151	50,910	28	12,020	66	2,500	57	35,390		
Tongue River.....	410	27,189	32	16,828	378	10,361				
Nebraska.....	57	20,494	31	16,034	17	860	9	3,600		
Genoa.....	12	6,189	12	6,189						
Omaha.....	5	2,040	4	1,860	1	180				
Sanjee.....	21	4,500	7	3,900	14	600	(*)	(*)	(*)	(*)
Winnebago.....	19	7,765	8	4,085	2	80	9	3,600		
Nevada.....	1,032	119,180	49	15,635	192	6,407	727	93,738	65	3,400
Carson.....	103	10,565	12	5,965	26	1,200			65	3,400
Fallon.....	189	22,175	2	563	1	12	186	21,600		
Fort McDermitt.....	165	29,266	15	950	5	106	155	28,200		
Moapa River.....	69	4,452	3	552	30	300	36	3,600		
Nevada.....	20	3,674	12	3,314	8	560				
Walker River.....	306	39,266	5	1,824	28	704	273	36,738		
Western Shoshone.....	181	9,522	10	2,467	94	3,525	77	3,600		
New Mexico.....	1,744	194,244	187	76,836	821	20,205	411	84,605	325	12,568
Albuquerque.....	176	10,692	14	6,609	34	613			128	3,470
Jicarilla.....	237	29,832	29	16,080	180	5,947	72	7,480	6	325
Mescalero.....	80	9,115	20	6,840	50	1,800	10	475		
Pueblo Bonito.....	15	4,400	15	4,400						
Pueblo day schools.....	447	94,044	39	12,640	111	2,974	274	74,550	23	3,880
San Juan.....	331	21,407	39	15,558	255	4,211			37	1,638
Santa Fe.....	199	11,321	18	7,669	50	367			131	3,285
Zuni.....	202	13,433	13	7,040	141	4,293	55	2,100		
New York:										
New York Agency.....	29	208			29	208				
North Carolina:										
Cherokee.....	232	18,363	13	5,308	57	2,060	157	10,900	5	125
North Dakota.....	2,159	82,610	145	57,727	1,684	18,758	75	6,000	5	125
Bismarck.....	10	2,345	5	2,220					5	125
Fort Berthold.....	448	20,514	22	8,953	1251	15,556	175	16,000		
Fort Totten.....	43	11,513	26	11,100	17	413				
Standing Rock.....	1,560	36,980	64	25,722	1,496	11,208				
Turtle Mountain.....	89	8,121	19	6,540	70	1,681	(*)	(*)	(*)	(*)
Wahpeton.....	9	3,187	9	3,187						
Oklahoma.....	716	208,119	275	196,194	354	4,598	26	5,590	61	1,737
Cantonment.....	36	6,952	7	4,020	6	42	23	2,890		
Cheyenne and Arapaho.....	30	10,019	16	9,840	14	179				
Chillico.....	205	13,631	17	10,240	127	1,654			61	1,737
Five Civilized Tribes.....	102	95,170	102	95,170						
Kiowa.....	181	22,773	46	21,977	135	796				
Osage.....	15	12,280	15	12,280						
Otoe.....	4	3,180	3	2,700	1	480				
Pawnee.....	13	7,611	9	4,910	1	1	3	2,700		
Ponca.....	8	3,240	8	3,240						

1916 report.

* Unknown.

* Three temporary.

TABLE 13.—*Employment of Indians during fiscal year ended June 30, 1917—Contd.*

States and superintendencies.	Total employed.		Indians employed by United States Indian Service.				Employed by private parties.			
			Regular employees.		Irregular employees.		Adults.		Minors or out-going pupils.	
	Number.	Earnings.	Number.	Earnings.	Number.	Earnings.	Number.	Earnings.	Number.	Earnings.
Oklahoma—Continued.										
Sac and Fox.....	13	\$5,135	6	\$4,770	7	\$365				
Seger.....	32	3,887	9	3,640	23	217				
Seneca.....	8	6,550	8	6,550						
Shawnee.....	13	7,140	13	7,140						
Five Civilized Tribes schools.....	56	10,581	16	9,717	40	864				
Armstrong Academy.....	13	3,538	4	3,345	9	198				
Cherokee Training.....	12	1,984	4	1,800	8	184				
Jones Academy.....	17	1,824	3	1,477	14	247				
Nuyaka Boarding.....	8	1,900	3	1,796	5	105				
Tuskahoma Academy.....	4	35			4	35				
Wheelock Academy.....	2	1,300	2	1,300						
Oregon.....	351	37,077	66	29,837	285	7,220				
Klamath.....	160	11,663	15	7,594	145	4,069				
Salem.....	35	8,696	14	8,597	21	99				
Siletz.....	15	2,550	6	2,318	9	241				
Umatilla.....	14	5,920	12	4,930	2	1,100				
Warm Springs.....	127	8,219	19	6,528	108	1,691				
Pennsylvania: Carlisle.....	633	49,453	7	4,185	142	3,172			484	\$42,066
South Dakota.....	2,421	235,298	305	117,935	1,640	51,560	450	\$64,300	26	1,473
Cheyenne River.....	548	38,878	44	19,236	504	19,642				
Crow Creek.....	160	12,112	20	8,312	140	3,800				
Flandreau.....	71	9,987	19	7,010	26	1,504			26	1,473
Lower Brule.....	60	8,495	12	6,545	47	1,450	1	500		
Pierre.....	24	2,927	5	2,570	19	357				
Pine Ridge.....	682	90,672	96	31,590	283	6,882	306	52,200		
Rapid City.....	28	4,562	11	4,400	17	162				
Rosebud.....	758	49,866	62	21,266	550	17,000	146	11,600		
Sisseton.....	34	10,937	20	10,480	14	457				
Springfield.....	2	840	2	840						
Yankton.....	54	6,022	14	5,696	40	336				
Utah.....	409	21,001	28	10,413	251	4,988	127	5,000	5	600
Goshute.....	190	4,568	1	495	109	873	75	2,600	5	600
Shivwits.....	89	3,174	2	324	35	450	52	2,400		
Uintah and Ouray.....	130	13,269	23	9,594	107	3,665				
Washington.....	778	97,372	87	44,168	411	12,450	280	40,754		
Colville.....	353	45,488	15	9,038	308	9,410	35	27,040		
Cushman.....	164	16,568	11	8,933	30	545	123	7,090		
Neah Bay.....	124	7,726	5	1,208	17	214	102	6,304		
Spokane.....	36	3,662	11	2,997	25	665	(1)	(1)		
Taholah.....	25	1,724	5	1,404			20	320		
Tulalip.....	52	9,418	17	8,174	35	1,244				
Yakima.....	24	12,786	23	12,414	1	372				
Wisconsin.....	2,242	184,023	101	45,753	702	14,589	1,333	121,481	106	2,200
Hayward.....	701	35,920	12	5,270	25	600	584	28,200	80	1,850
Keshena.....	615	25,503	23	15,540	582	9,962				
Lac du Flambeau.....	24	6,301	11	5,998	13	308				
Laona.....	59	1,720	1	720			58	1,000		
La Pointe.....	577	62,807	5	2,850	72	3,401	600	56,556		
Onells.....	15	5,915	15	5,915						
Rod Cliff.....	225	38,941	5	2,820	3	46	191	35,725	26	350
Tomah.....	16	2,917	8	2,640	7	277				
Wittenberg.....	11	4,000	11	4,000						
Wyoming: Shoshone.....	781	63,230	28	13,130	725	44,250	26	5,700	1	180

1 Unknown.

TABLE 14.—Vital statistics, housing, and disease during fiscal year ended June 30, 1917.

States and superintendencies.	Popula- tion.	Births and deaths.			Disease.					Num- ber fam- ilies using milk cows.	Housing.		Houses having wooden floors.	
		Births.	Deaths.		Indians exam- ined.	Found with—			Estimated hav- ing—		Families living in—			
			Total.	Under 3 years.		Due to tuber- culosis.	Latent tuber- culosis.	Active tuber- culosis.	Tuber- culosis.			Tuber- culosis.		Perma- nent houses.	Ten- ants, rent houses, etc.
Grand total.....	207,908	6,340	1,379	1,210	83,882	6,776	6,032	14,365	27,791	23,216	6,293	42,601	10,781	27,417
Arizona.....	44,617	1,249	278	311	12,963	711	710	3,798	5,283	7,661	186	4,074	5,175	702
Camp Verde.....	439	13	7	2	126	2	2	21	4	22	.....	.....	115	.....
Colorado River.....	1,207	26	6	26	499	3	31	7	100	92	.....	58	208	61
Fort Apache.....	2,609	313	36	19	943	321	224	94	1,225	650	.....	4	609	5
Havasupai.....	173	3	2	2	42	1	3	16	24	16	.....	9	36	18
Kaibab.....	96	3	3	2	35	1	3	15	4	30	.....	6	13	6
Leupp.....	1,836	79	8	8	728	.....	9	92	164	346	.....	23	246	.....
Moguel.....	4,200	1,115	147	8	1,665	31	82	389	450	1,765	.....	503	300	51
Navajo.....	12,080	279	61	(1)	2,526	78	101	500	1,060	1,600	15	780	1,600	265
Pima.....	6,253	44	30	14	2,532	180	101	1,902	470	1,939	55	1,401	.....	40
Salt River.....	1,222	44	14	8	1,232	15	14	89	79	89	15	146	214	43
San Carlos.....	2,659	61	23	17	1,483	.....	10	135	225	340	100	950	575	81
San Xavier.....	5,112	201	66	43	1,483	15	24	270	687	630	100	950	575	28
Truxton Canon.....	457	12	7	14	800	76	49	155	181	208	.....	20	124	9
Western Navajo.....	6,565	100	25	40	1,191	.....	76	113	350	175	.....	60	1,140	7
California.....	10,362	167	33	54	3,890	53	95	413	607	1,567	168	2,004	431	1,488
Bishop.....	1,600	15	2	2	200	2	11	41	256	55	2	222	74	150
Campo.....	283	5	1	1	134	2	.....	7	2	4	7	14	49	6
Digger.....	299	7	2	1	22	.....	.....	.....	.....	.....	2	71	3	99
Fort Bidwell.....	756	6	2	5	150	5	15	112	41	567	3	75	123	34
Fort Yuma.....	833	18	6	8	824	6	2	12	7	12	.....	150	60	20
Greenville.....	629	19	11	7	135	2	5	35	10	265	.....	142	21	156
Hopoe Valley.....	1,260	25	23	11	300	12	26	33	142	220	10	310	10	300
Malki.....	629	9	3	2	200	8	9	18	9	13	3	109	37	91
Pala.....	1,023	14	20	8	523	.....	15	12	40	17	37	107	82	.....
Round Valley.....	1,700	10	20	6	500	4	4	13	39	33	23	430	105	350
Soboba.....	1,921	11	22	9	602	8	7	34	13	44	23	228	22	105
Tule River.....	440	8	14	2	300	5	.....	105	37	330	35	141	33	126

* Not reported.

* 1916 report.

* Estimated.

TABLE 14.—*Vital statistics, housing, and disease during fiscal year ended June 30, 1917—Continued.*

States and superintendencies.	Popu- lation.	Births and deaths.			Disease.				Num- ber fam- ilies using milch cows.	Housing.		Houses having wooden floors.			
		Births.	Deaths.		Indians exam- ined.	Found with—				Families living in—					
			Total.	Under 3 years.		Due to tubercu- losis.	Latent tubercu- losis.	Active tubercu- losis.		Tra- choma.	Tra- choma.		Perma- nent houses.	Tents, caves, etc.	
Colorado.....	898	30	31	7	7	679	5	12	154	28	420	4	137	167	46
Southern Ute.....	372	18	11	8	1	241	6	8	96	8	320	4	137	7	44
Ute Mountain.....	526	12	20	4	6	438	.....	9	59	20	100	.....	160	100	2
Florida: Seminole.....	586	6	6	1	.....	11	.....	.....	.....	.....	.....	3	.....	74	.....
Idaho.....	4,168	121	177	51	60	2,673	40	101	109	344	619	535	741	291	631
Coeur d'Alene.....	826	26	36	13	15	610	7	34	53	66	52	107	246	.....	261
Fort Hall.....	1,709	44	98	27	29	943	.....	45	51	134	517	18	145	291	70
Fort Lapwai.....	1,373	51	45	11	16	1,220	33	22	36	144	50	400	350	.....	330
Iowa: Sac and Fox.....	360	17	5	2	4	135	.....	21	39	37	39	.....	35	45	26
Kansas.....	1,421	38	34	9	9	515	3	12	139	6	172	94	342	.....	420
Kikapoo.....	640	24	16	2	3	184	2	4	71	6	72	47	141	.....	200
Potawatomi.....	781	14	18	7	6	331	1	8	68	.....	100	47	201	.....	230
Michigan: Mackinac.....	1,097	(1)	(1)	(1)	(1)	500	1	3	8	4	8	25	420	.....	332
Minnesota.....	11,777	333	295	81	77	7,917	174	298	988	1,944	1,985	385	2,742	4	2,136
Fond du Lac.....	1,056	33	26	9	4	500	16	28	24	35	42	100	200	.....	200
Grand Portage.....	1,321	11	9	5	.....	176	7	1	.....	8	.....	.....	73	.....	51
Leech Lake.....	1,770	56	41	13	16	974	16	15	45	39	80	30	866	4	337
Nett Lake.....	1,007	11	15	3	5	53	6	10	.....	16	.....	5	115	.....	115
Pipestone (Birch Cooley).....	160	4	4	1	2	71	19	6	33	33	23	.....	34	.....	24
Red Lake.....	1,492	62	72	24	23	665	22	41	310	290	290	.....	350	.....	360
White Earth.....	6,371	156	128	26	28	5,179	88	192	41	536	1,550	250	1,104	.....	1,009
Montana.....	11,525	360	325	111	88	5,793	355	451	1,433	1,588	3,043	206	2,773	203	1,309
Blackfeet.....	2,752	94	85	38	14	1,915	53	70	615	395	1,268	.....	601	127	617
Crow.....	1,710	56	55	16	13	1,060	113	22	130	138	146	27	464	1	231

Ft. Peck.....	2,410	57	45	11	13	360	39	8	60	99	110	157	498	2	321
Fort Belknap.....	1,206	32	32	11	11	476	.....	25	40	240	420	12	270	.....	110
Fort Peck.....	1,986	47	43	13	17	1,290	.....	280	253	253	500	.....	461	70	.....
Tongue River.....	1,461	72	65	22	21	900	150	46	300	461	600	.....	476	3	110
Nebraska.....	3,617	128	130	50	16	1,705	68	39	320	188	353	33	918	6	893
Omaha.....	1,318	66	79	38	(1)	(1)	(1)	(1)	(1)	(1)	(1)	.....	300	.....	300
Santee.....	1,194	30	25	2	13	465	25	10	172	84	108	25	365	6	300
Winnebago.....	1,105	32	26	10	4	1,300	43	29	148	104	250	8	223	.....	268
Nebraska.....	7,944	224	212	83	21	1,076	77	58	483	265	2,089	38	894	841	478
Fallon.....	429	11	10	3	5	289	18	7	107	36	136	1	88	61	56
Fort McDowell.....	350	7	6	2	1	180	451	47	125	123	280	2	32	77	12
Nebraska River.....	120	5	4	1	3	38	6	5	40	18	80	2	12	30	12
Nevada.....	614	10	16	6	4	270	.....	13	58	26	100	2	149	.....	100
Walker River.....	708	17	20	4	6	105	.....	12	79	18	300	.....	53	90	33
Western Shoshone.....	625	14	7	2	2	214	2	14	74	45	213	18	60	83	67
Beno, special agent.....	5,100	150	150	35	(1)	(1)	(1)	(1)	(1)	(1)	1,000	15	500	500	220
New Mexico.....	20,853	431	353	105	80	12,056	2,727	1,683	1,421	4,868	4,578	178	3,469	1,680	286
Harilla.....	645	35	32	6	16	413	16	32	.....	66	.....	2	120	35	60
Nebraska.....	227	24	(1)	10	(1)	381	.....	24	84	24	84	15	75	115	35
Public Bunko.....	2,724	.....	.....	.....	.....	1,500	21	33	253	446	1,440	.....	2,384	440	.....
Public day schools.....	3,700	280	223	87	32	2,312	44	83	254	219	1,123	161	2,384	.....	111
San Juan.....	9,508	215	12	12	20	7,000	2,044	1,508	730	4,068	1,908	.....	200	1,060	80
Zuni.....	1,833	57	39	20	1	560	3	2	8	8	16	.....	705	.....	50
New York: New York Agency.....	5,912	81	87	15	(1)	(1)	(1)	(1)	(1)	(1)	(1)	.....	1,599	.....	1,599
North Carolina: Cherokee.....	2,282	50	42	6	14	415	.....	13	14	26	90	350	450	.....	450
North Dakota.....	8,903	237	186	41	62	4,580	216	457	770	1,316	1,456	816	2,198	.....	1,153
Fort Berthold.....	1,182	45	48	13	12	425	42	17	190	59	400	20	259	.....	90
Fort Totten.....	1,002	48	47	9	20	1,300	44	82	121	245	400	40	279	.....	250
Turtle Rock.....	3,455	36	40	10	21	1,550	121	227	416	579	408	208	796	.....	50
Turtle Mountain.....	3,364	98	51	9	9	1,805	9	31	73	133	260	550	886	.....	763
Oklahoma.....	14,913	488	378	184	58	4,782	114	496	2,000	2,273	4,517	1,000	3,713	363	3,530
Cantonment.....	785	25	23	5	7	244	14	18	10	32	10	18	113	73	113
Cheyenne and Arapaho.....	1,252	42	53	20	16	560	2	51	150	190	190	47	332	36	238
Kiowa.....	4,554	189	140	50	8	2,284	89	191	1,159	1,470	2,560	192	1,012	150	906
Osage.....	2,180	7	25	.....	8	128	.....	3	25	1	200	106	587	.....	887
Otoe.....	518	40	18	10	2	38	2	.....	.....	51	180	100	158	.....	219
Pawnee.....	714	38	17	8	.....	104	1	.....	43	280	110	180	.....	.....	158
Ponca.....	1,045	51	38	21	4	417	1	9	207	22	207	28	290	.....	207

* Partly reported.
* 1917 report.

* Ponca Indians not included.
* 1916 report.

* No record.
* Increase due to larger number examined.

TABLE 14.—Vital statistics, housing, and disease during fiscal year ended June 30, 1917—Continued.

States and superintendencies.	Popula- tion.	Births and deaths.			Disease.				Num- ber fam- ilies using milked cows.	Housing.		Houses having wooden floors.			
		Births.	Deaths.		Indians exam- ined.	Found with—				Families living in—	Tents, barns, etc.				
			Total.	Under 3 years.		Due to tubercu- losis.	Latent tubercu- losis.	Active tubercu- losis.					Tra- choma.	Tuber- culosis.	Tra- choma.
Oklahoma—Continued.	682	24	15	9	1	5	1	6	36	130	139				
Saw and Fox.	753	28	28	7	10	1640	220	386	20	140	240				
Sage.	1,608	20	5	1	2		(1)	(1)	145	133	139				
Seneca.	1,787	24	16	4	2		(1)	15	108	134	140				
Oregon.	11,612	112	91	25	16	96	51	1,308	181	2,929	3,387				
Klamath.	1,160	46	28	15	3	17	7	37	90	452	458				
Roseburg.	8,000	(1)	10	2	(1)	(1)	(1)	1,000	(1)	1,000	2,000				
Umatilla.	1,457	13	8	5	288	5	5	25	29	80	90				
Wallowa.	1,197	26	8	6	260	40	15	74	50	297	366				
Warm Springs.	813	17	9	4	280	23	24	105	14	200	260				
South Dakota.	21,246	635	634	176	194	1,572	910	4,344	1,098	7,800	3,971				
Cheyenne River.	2,762	82	25	25	2,460	575	125	950	200	722	722				
Crow Creek.	582	23	11	11	279	71	2	119	105	105	115				
Flandreau.	961	11	1	1	152	2	2	9	10	105	110				
Hanksville.	404	15	9	3	152	25	27	50	20	214	214				
Lower Brule.	7,247	302	96	96	5,745	820	458	1,727	249	2,760	1,150				
Pine Ridge.	5,428	87	20	20	1,360	30	82	128	219	2,293	1,150				
Rosebud.	5,635	87	155	3	1,800	60	26	25	145	560	570				
Siouxland.	1,954	43	60	9	1,800	170	170	108	160	570	560				
Yankton.	1,868	44	41	9	1,862										
Utah.	1,438	48	63	26	14	24	34	118	20	219	174				
Goshute.	153	8	8	3	153		1	20	17	31	14				
Shoshone.	120	3	4	1	30		3	18	17	26	17				
Ute and Oursay.	1,155	42	51	23	672	24	20	80	20	123	143				
Washington.	11,068	252	207	89	82	131	333	378	305	2,760	2,455				
Calvin.	2,659	68	85	31	11		245	139	143	598	587				
Cushman.	2,132	30	25	11	10		(1)	8	15	208	278				

Neah Bay.....	927	13	26	4	7	430	8	6	17	19	203	10	143
Spokane.....	693	14	21	4	10	275	4	8	13	36	187	1	161
Thoboh.....	763	15	14	5	5	110	1	5	6	24	243	1	98
Tulalip.....	1,349	53	53	10	20	333	25	13	123	84	340	14	375
Yakima.....	3,000	60	54	24	19	530	98	101	1,120	650	894	75	694
Wyandott.....	9,610	240	210	41	43	3,203	359	180	1,109	633	2,268	316	2,057
Grand Rapids.....	1,372	39	29	6	5	15	159	6	92	31	75	236	75
Hayward.....	1,277	19	42	9	9	1,010	159	43	320	180	413	236	310
Keshena.....	1,745	53	46	9	13	1,036	14	67	123	50	333	236	236
Lea du Flambeau.....	1,749	20	17	6	5	1,157	15	15	41	130	223	203	203
Lecore.....	335	16	8	5	1	86	13	4	38	12	23	90	23
La Pointe.....	1,046	23	24	3	9	654	94	23	230	11	443	23	23
Onondaga.....	2,575	65	41	3	1	64	94	11	225	50	541	541	541
Red Cliff.....	511	.....	3	3	.....	302	31	10	41	.....	195	174	174
Wyoming: Shoshone.....	1,674	103	115	35	(1)	370	80	31	585	550	123	599	43

1 No record.

2 1916 report.

3 Partly reported.

SUMMARY.

Birth rate per 1,000 Indian population.....	21.80
Death rate per 1,000 Indian population.....	24.97

TABLE 15.—Hospitals and sanatoria in Indian Service, fiscal year ended June 30, 1917.

States and superintendencies.	Agency or school hospital or sanatorium.	Number.	Character of construction.	Capacity.	Patients in hospital, June 30, 1916.	During fiscal year 1917.			Remaining in hospital, June 30, 1917.
						Admitted.	Total treated.	Discharged.	
Arizona.									
Total, 1917.....		81		2,273	488	16,452	16,940	16,156	605
1916.....		81		2,283	332	15,314	15,666	14,968	529
1915.....		74		2,045	402	11,790	12,201	11,543	467
1914.....		161		1,432	487	11,103	11,590	11,066	424
1913.....		48		1,358	296	9,475	9,771	9,231	478
1912.....		53		1,256	258	9,257	9,515	9,141	306
1911.....		50		1,268	330	8,078	8,408	7,940	408
1900.....		5				4,176			
1888.....		4				2,198			
California.									
Total, 1917.....		15		421	119	2,000	2,119	1,924	182
1916.....		15		421	119	2,000	2,119	1,924	182
1915.....		15		421	119	2,000	2,119	1,924	182
1914.....		15		421	119	2,000	2,119	1,924	182
1913.....		15		421	119	2,000	2,119	1,924	182
1912.....		15		421	119	2,000	2,119	1,924	182
1911.....		15		421	119	2,000	2,119	1,924	182
1900.....		15		421	119	2,000	2,119	1,924	182
1888.....		15		421	119	2,000	2,119	1,924	182
Colorado River.									
Fort Apache.....	Agency	1	Adobe	3	2	7	7	7	4
Fort Mojave.....	do.	1	Frame	40	8	319	321	316	1
Fort Yuma.....	School	1	Brick	8	17	98	98	97	1
Leupp.....	Agency	1	Stone	35	30	101	118	115	3
Moqui.....	do.	1	do.	40	30	845	375	334	6
Navajo.....	School	1	Frame	20	89	487	499	482	5
Do., Sanatorium.....	Brick	1	Brick	66	2	487	489	482	2
Phoenix.....	School	1	Frame	100	66	65	131	29	12
Do., Sanatorium.....	do.	1	do.	60	2	72	72	61	9
Pima.....	School	1	Stone	15	2	242	244	244	2
Rio Station.....	Agency	1	Camp	4	1	1	1	1	1
San Carlos.....	School	1	Brick	4	4	107	107	107	1
Truxton Canon.....	School	1	Camp	10	10	40	40	40	2
Do., Agency.....	do.	1	Camp	8	8	77	77	75	2
Western Navajo.....	School	1	Stone	177	13	1,160	1,178	1,144	19
Colorado.									
Fort Bidwell.....	School	1	Frame	12	1	74	76	74	1
Fort Yuma.....	School and agency	1	do.	25	1	126	126	117	2
Greenville.....	do.	1	do.	9	1	143	144	140	2
Hoopa Valley.....	do.	1	do.	6	2	39	41	38	3
Do., Agency.....	do.	1	do.	25	8	779	787	775	2
Sherman Institute.....	School	1	Brick	100	8	779	787	775	2
Idaho.....	do.	1	do.	112	69	183	232	174	64
Idaho.									
Fort Hall.....	School and agency	1	Stone	12	6	101	107	103	4
Fort Layton.....	Sanatorium	1	Frame	100	63	83	148	71	10

Iowa: Sac and Fox Sanatorium.....do.....	1	Brick.....	80	43	60	112	64	8	40
Kansas: Haskell Institute.....School.....	1	do.....	70	.....	862	862	857	1	4
Michigan: Mount Pleasant.....School.....	1	Brick.....	24	1	224	225	220	3	2
Minnesota.....	5	.....	110	24	1,269	1,313	1,270	19	24
Fond du Lac.....Agency.....	1	Frame.....	30	8	228	226	223	3	10
Leech Lake.....do.....	1	do.....	10	.....	130	130	129	.....	1
Pipestone.....School.....	1	Stone.....	16	.....	180	186	173	11	4
Red Lake.....Agency.....	1	Frame.....	30	10	783	789	745	5	9
White Earth.....do.....	1	do.....	24	6	.....	.....	.....	7	6
Montana.....	4	.....	70	7	311	318	306	.....	.....
Blackfoot.....Sanatorium.....	1	Frame.....	20	3	32	35	31	1	3
Crow.....Agency.....	1	do.....	24	4	144	143	142	4	2
Flathead.....do.....	1	do.....	13	.....	5	5	6	.....	.....
Fort Peck.....School.....	1	Brick.....	14	.....	130	130	128	3	.....
Nebraska.....	2	.....	136	14	860	864	866	17	12
Genoa.....School.....	1	Frame.....	86	2	409	411	411	.....	12
Winnebago.....Agency.....	1	Brick.....	50	13	471	483	464	17	.....
Nevada.....	4	.....	43	.....	300	300	260	2	8
Carson.....School.....	1	Frame.....	14	.....	277	277	278	2	.....
Do.....do.....	1	do.....	20	.....	20	20	12	.....	3
Fort McDowell.....School.....	1	Stone.....	8	.....	3	3	3	.....	.....
Western Shoshone.....Agency.....	1	Frame.....	.....	.....	.....	.....	.....	.....	.....
New Mexico.....	10	.....	241	28	1,190	1,213	1,166	8	44
Albuquerque.....School.....	1	Frame.....	44	.....	263	263	262	.....	.....
do.....do.....	1	do.....	8	.....	80	80	79	1	.....
do.....do.....	1	do.....	26	.....	.....	.....	.....	.....	.....
Mescalero.....do.....	1	do.....	20	.....	30	30	14	.....	15
Pueblo Bonito.....do.....	1	Brick.....	12	2	183	183	182	4	3
Pueblo day schools.....do.....	1	Adobe.....	34	20	58	78	55	1	23
San Juan.....Sanatorium.....	1	Brick.....	20	4	393	400	395	.....	5
Do.....do.....	1	do.....	8	.....	.....	.....	.....	.....	.....
Santa Fe.....Agency.....	1	Frame.....	20	.....	152	152	154	1	.....
do.....do.....	1	Brick.....	20	2	26	26	25	.....	.....
Zuni.....School.....	1	Stone.....	20	.....	205	205	203	2	.....
North Carolina: Cherokee.....School and agency.....	1	Frame.....	20	.....	.....	.....	.....	.....	.....

* Not completed, June 30, 1917.
 † Not in operation fiscal year 1917.
 ‡ Not opened for reception of patients fiscal year 1917.
 § Temporary quarters.

† Does not include rooms in dormitories used for ill pupils.
 ‡ Including rooms in dormitories used for ill pupils.
 § Cases treated during year by physicians not all in hospitals.
 * No record.
 * 1916 report.

TABLE 15.—Hospitals and sanatoria in Indian Service, fiscal year ended June 30, 1917—Continued.

States and superintendencies.	Agency or school hospital or sanatorium.	Number.	Character of construction.	Capacity.	Patients in hospital, June 30, 1916.	During fiscal year 1917.				Remaining in hospital, June 30, 1917.
						Admitted.	Total treated.	Discharged.	Died.	
North Dakota.....		4		94		632	632	632	8	23
Fort Totten.....	School.....	1	Frame.....	20		272	272	272		7
Standing Rock.....	Agency.....	1	do.....	30		235	235	235	8	15
Turtle Mountain.....	Sanatorium.....	1	do.....	20		53	53	53		
Walveston.....	School.....	1	Brick.....	24		122	122	122		
Oklahoma.....		6		185	24	1,362	1,366	1,323	13	50
Cheyenne and Arapaho.....	Sanatorium.....	1	Frame.....	20		24	24	19	3	2
Chilocco.....	School.....	1	Stone.....	35	7	646	655	654		1
Five Civilized Tribes.....	Agency.....	1	Frame.....	60		50	50	36	8	20
Kiowa.....	do.....	1	Brick.....	50	17	470	496	464	7	25
Osage.....	School.....	1	Frame.....	8		72	72	72		2
Sage.....	do.....	1	Brick.....	12		80	80	78		
Oregon: Salem.....	do.....	1	do.....	26	19	912	931	898	3	30
Pennsylvania: Carlisle.....	do.....	1	do.....	80	6	1,103	1,109	1,102		7
South Dakota.....		8		265	94	2,064	2,148	2,060	15	88
Canton Asylum.....	Agency.....	1	Brick.....	92	54	20	74	2	6	67
Cheyenne River.....	do.....	1	do.....	36	25	1,140	1,155	1,100	1	4
Crow Creek.....	do.....	1	Frame.....	12		47	47	40		7
Flandreau.....	School.....	1	do.....	24		404	404	402	2	
Pierre.....	do.....	1	Brick.....	30		156	156	156		
Pine Ridge.....	do.....	1	do.....	20		110	110	110		
Rapid City.....	do.....	1	do.....	12		121	121	118	3	
Rosebud.....	Agency.....	1	do.....	30	15	56	71	62	4	5
Utah: Uintah and Ouray.....	do.....	1	Frame.....	8	5	190	195	189	3	3
Washington.....		4		84	8	615	622	610	6	7
Cushman.....	School.....	1	Frame.....	40	4	291	295	295		4
Spokane.....	Sanatorium.....	1	do.....	20		66	72	66	3	3
Tulalip.....	School.....	1	do.....	12		129	129	123		
Yakima.....	do.....	1	do.....	12		127	127	127		

TABLE 16.—Indians self-supporting and Indians receiving rations and miscellaneous supplies during fiscal year ended June 30, 1917—Continued.

States and reservations.	Able-bodied adult Indians self-supporting.	Indians receiving rations.						Indians receiving miscellaneous supplies.					
		Total.			In return for labor.			Total.			In return for labor.		
		Receiving rations.	Value of rations.	Able-bodied.	Dis-abled.	Value of rations.	Value of ration equivalent.	Receiving supplies.	Value of supplies.	Able-bodied.	Dis-abled.	Value of supplies.	Value of ration equivalent.
Arizona—Continued.													
San Xavier.....	2,610							73	\$1,507			40	\$1,487
Truxton Canon.....	150	70	\$203		70		\$203	4	1,308			4	1,308
Western Navajo.....	2,500							54	2,439			54	2,439
California.....	5,422	412	5,764	43	339	5,126		184	1,506	55	38	91	1,173
Bishop.....	1,000	19	302		15	159		22	76			6	38
Champo.....	78	20	203		11	203		16	63	1	16	1	63
Digger.....	242	17	747	6	6	747							
Fort Bidwell.....	400	55	547	6	49	547		44	766			44	766
Fort Yuma.....	469	25	253		25	253							
Greenville.....	200	5	140		8	140							
Hopona Valley.....	200	11	823	7	107	823		11	146			3	150
Malheur.....	240	34	273		20	273		40	246			20	246
Palmdale.....	654	25	533		25	533		23	43			18	13
Round Valley.....	1,940	23	408	43	43	408							
Boboda.....	503	26	496		26	496							
Tule River.....	33												
Colorado.....	30	349	9,942	137	212	9,942			1,363				1,363
Southern Ute.....	30	103	4,054	16	87	4,054			1,363				1,363
Ute Mountain.....		249	5,883	121	126	5,883							
Idaho: Fort Hall.....	881	220	8,504		220	8,504							
Michigan: Mackinac.....	526												
Minnesota.....	4,334	885	6,786	75	701	6,120		6	400	6		43	391
Fond du Lac.....	250	16	361	2	14	361		233	1,648	112	78		1,257
Grand Portage.....	139	82	712		9	712							
Leech Lake.....	900	81	742	73	71	825		48	839			48	839
Nett Lake.....	230	41	1,177		41	1,177		86	395			43	391
Pipestone (Birch Cooley).....	100	8	675		8	675		55	13			24	31
Red Lake.....	625	3	17		3	17							
White Earth.....	2,000	654	3,113		9	269		44	401			44	401

Montana.....	2,187	8,256	63,394	735	10,113	653	1,893	53,276	624	8,318	34	691	184	406	8,227
Blackfoot.....	475	1,352	20,894	686	10,021	239	427	19,843	315	4,603	.....	.....	.....	315	4,003
Crow Agency.....	400	896	40	.....	.....	40	40	896	.....	.....	.....	.....	.....	31	174
Flathead.....	285	87	1,290	.....	.....	87	87	1,290	43	601	11	617	.....	.....	535
Fort Belknap.....	400	160	3,221	.....	.....	160	160	3,221	47	549	17	14	30	.....	2,855
Fort Peck.....	575	240	10,117	18	97	.....	322	10,020	.....	.....	6	60	154	60	.....
Tongue River.....	53	1,277	13,028	31	(*)	414	533	13,028	220	2,915	.....	.....	.....	.....	.....
Nebraska: San tee.....	680	83	1,832	.....	.....	.....	83	1,832	31	16	31	16	.....	.....	63
Nebraska.....	4,399	304	2,516	60	171	6	238	2,345	200	5,006	269	4,944	6	15	.....
Fort McDermitt.....	173	36	473	.....	.....	.....	36	473	.....	.....	.....	.....	.....	.....	.....
Moapa River.....	60	15	134	.....	.....	.....	15	134	17	26	.....	.....	.....	13	26
Nevada.....	800	47	677	.....	.....	3	44	677	71	2,826	69	2,828	1	1	3
Walker River.....	441	50	92	.....	.....	.....	20	92	.....	.....	.....	.....	.....	.....	.....
Western Shoshone	266	169	297	60	171	3	30	96	200	2,121	200	2,121	.....	2	33
Reno, special agent	8,130	85	874	.....	.....	.....	85	874	3	33	.....	.....	.....	.....	.....
New Mexico.....	10,846	210	10,079	12	1,142	12	186	8,987	532	7,315	416	6,385	40	76	980
Alcarrilla.....	75	143	4,596	.....	.....	.....	118	3,424	201	2,037	140	1,238	40	31	799
Mescalero.....	60	66	5,513	.....	.....	.....	66	5,513	85	181	.....	.....	.....	85	181
Pueblo Boultz.....	12,734	.....	.....	.....	.....	.....	68	.....	100	2,160	100	2,160	.....	.....	.....
Pueblo day schools	4,810	.....	.....	.....	.....	.....	104	1,732	104	1,732	104	1,732	.....	.....	.....
San Juan.....	12,647	.....	.....	.....	.....	.....	73	1,205	73	1,205	73	1,205	.....	.....	.....
North Carolina: Cher-	1,003	4	47	.....	.....	1	3	47	.....	.....	.....	.....	.....	.....	.....
olise.....	2,683	1,260	22,893	.....	.....	.....	1,260	22,893	246	1,009	.....	.....	136	111	1,009
North Dakota.....	800	180	2,219	.....	.....	.....	136	2,219	136	831	.....	.....	136	.....	831
Fort Berthold.....	1,200	1,000	15,493	.....	.....	.....	1,000	15,493	111	246	.....	.....	.....	111	246
Standing Rock.....	1,123	111	1,679	.....	.....	.....	88	1,679	31	791	3	7	.....	10	794
Turtle Mountain.....	2,226	88	1,908	.....	.....	.....	88	1,908	.....	.....	.....	.....	.....	.....	.....
Oregon.....	500	(*)	1,022	.....	.....	(*)	(*)	1,022	19	679	.....	.....	(*)	19	679
Klamath.....	1,200	43	800	.....	.....	43	43	800	(*)	105	.....	.....	(*)	(*)	105
Roseburg.....	223	40	531	.....	.....	.....	40	531	2	7	2	7	.....	.....	.....
Siletz.....	300	40	531	.....	.....	.....	40	531	.....	.....	.....	.....	.....	.....	.....
Warm Springs.....	2,436	5,497	100,461	26	415	2,980	2,491	100,046	460	10,286	27	12	191	242	10,286
South Dakota.....	460	636	13,601	18	415	109	509	13,186	114	512	.....	.....	114	.....	512
Cheyenne River.....	175	187	9,241	.....	.....	.....	187	9,241	2	12	2	12	.....	2	12
Crow Creek.....	150	47	888	.....	.....	.....	47	888	23	231	.....	.....	.....	23	231
Flanagan.....	100	36	1,653	.....	.....	.....	36	1,653	.....	.....	.....	.....	.....	.....	.....
Lower Brule.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

* Not reported.

* 1916 report.

* Estimated.

TABLE 16.—Indians self-supporting and Indians receiving rations and miscellaneous supplies during fiscal year ended June 30, 1917—Continued.

States and reservations.	Able-bodied adult Indians self-supporting.	Indians receiving rations.				Indians receiving miscellaneous supplies.					
		Total.		In return for labor.		Without labor equivalent.		Total.		In return for labor.	
		Receiving rations.	Value of rations.	Number.	Value of rations.	Able-bodied.	Dis-abled.	Receiving supplies.	Value of supplies.	Number.	Value of supplies.
South Dakota—Con.											
Pine Ridge.....	1,202	2,463	\$43,741	8		971	1,484	77	\$5,281	25	\$5,281
Roosebud.....	209	2,100	31,065			1,900	28	245	1,262		1,262
Yankton.....	90	28									
Utah.....	260	531	7,615			490	41	633	20,468		20,468
Goshute.....	110	8	178				8				
Shirwita.....	80	23	402				33	33	112		112
Utah and Ouray	70	490	7,036			490		600	20,331		20,331
Washington.....	8,129	189	2,660	7	\$202	9	173	46	226		226
Colville.....	763	12	435	7	202		6	28	45		45
Cushman.....	240	18	366				13				
Neah Bay.....	432	13	164				13				
Spokane.....	345	9	159				9				
Tribalsh.....	535	45	1,005				36	10	92		92
Tulalip.....	604							6	63		63
Yakima.....	200	92	531				92	7	26		26
Wisconsin.....	1,760	175	5,158	8	663	80	87	51	223		223
Hayward.....	375	80	965			80					
Keweenaw.....	700	89	2,164	5	462		84	30	128		128
Leach Flamben.	210	26	508				26				
La Poudre.....	170	3	191	3				1	100		100
Red Cliff.....	140	8	286				8				
Wyoming: Shoshone..	250	412	7,568			250	162	110	1,453	1	\$4
											84
											223
											41
											6
											7
											9
											9
											1
											1
											30
											1,449

TABLE 17.—Indian and school population, number eligible for school attendance, number in schools, etc., and capacity of schools provided for Indian children during fiscal year ended June 30, 1917.

States and superintendencies.	Indian population.	Number of school-ages.	Ineligible for attendance.	Eligible for attendance.	Indian children in school.						Capacity all schools.				Total capacity all schools.	
					Government.			Mission and private.			Eligible children not in school.	Government.		Mission and private.		
					Non-reservation boarding.	Day.	Total.	Boarding.	Day.	Boarding.		Day.				
Grand total	309,409	89,601	5,126	89,601	11,268	10,902	6,558	28,738	5,111	726	16,789	19,271	7,893	5,608	1,289	83,109
Arizona	44,617	12,692	1,409	11,283	1,340	2,024	1,509	4,883	700	279	5,578	2,246	1,689	575	260	4,738
Camp Verde	439	117	4	113	18	108	74	92			92	80	60			60
Colorado River	1,207	371	22	349	232	108	120	337			349	200	133	40	14	372
Fort Apache	2,609	792	104	688	26	251	29	397	66		463	35	35			572
Havasupai	173	40	2	38			19	29			29	9	22			35
Kaibab	95	24	5	19	11	113	19	124	25		19		22			22
Leupp	1,586	587	13	574							574	163	20			183
Mogul	4,200	1,037	108	844	167	718	419	686			169	126	466			591
Navajo	12,060	4,411	347	4,064	107	718	57	876	270	47	1,193	766	35	190	25	1,676
Pima	6,253	1,813	183	1,630	203	208	272	573	28		1,554	213	305	265	60	2,019
Salt River	2,423	619	104	515	28	268	118	403	94		60	216	138		2	350
San Carlos	5,423	1,897	23	1,874	181	268	210	593	147	119	657	245	130	100		881
San Xavier	5,112	1,467	54	1,403	107	107	39	251			261	388	35			480
Truxton Canon	4,417	1,447	20	1,27	15	197		108			108	140	260			440
Western Navajo	6,566	1,200	380	820	111	197	39	251			261	388	35			573
Scattered		111		111				111			111					
California	10,362	4,439	283	4,156	895	404	518	1,317	126		3,483	345	697	100	1,541	2,688
Bishop	1,600	446	5	441	47		130	177			177	264	140			140
Campo	293	67	30	37	9		11	20			20	17	30			30
Daguer	269	76	16	60	24			34			54	6				60
Fort Bidwell	758	183	23	160	99		44	143			143	63				203
Fort Yuma	823	233	6	227	62	203	31	296			180	40				270
Greenville	639	1,353	29	1,324	35			36			1,200	165				1,465
Hopai Valley	1,299	605	80	525	78	201		279			279	246				795
Malibu	629	158	48	110	15			15			36		100			115

* Includes those in public schools, but not reported.

* School not in operation.

* 1916 report.

* Includes pupils from off reservation.

TABLE 17.—Indian and school population, number eligible for school attendance, number in schools, etc., and capacity of schools provided for Indian children during fiscal year ended June 30, 1917—Continued.

States and superintendences.	Indian population.	Number of school-age.	Ineligible for attendance.	Eligible for attendance.	Indian children in school.						Eligible children not in school.	Capacity all schools.				Total capacity all schools.	
					Government.			Mission and private.		Total in school.		Government.		Mission and private.			
					Non-reservation boarding.	Day.	Total.	Boarding.	Day.			Reservation boarding.	Day.				
California—Continued.																	
Pala.....	1,028	280	8	261	105	79	184	(1)	.....	219	32	.....	.....	.....	.....	25	133
Round Valley.....	1,700	454	13	441	131	94	225	.....	.....	325	135	.....	.....	.....	.....	31	262
Soboba.....	921	269	16	243	39	48	87	(1)	.....	126	118	.....	.....	.....	.....	28	126
Tule River.....	440	120	9	120	18	81	99	.....	.....	120	.....	.....	.....	.....	.....	31	107
Scattered.....	.....	183	.....	183	183	.....	183	.....	.....	183	.....	.....	.....	.....	.....	.....	.....
Colorado.....	808	315	49	266	16	83	46	145	.....	145	13	50	55	.....	.....	.....	105
Southern Ute.....	372	119	5	114	2	83	16	101	.....	101	13	50	20	.....	.....	.....	80
Ute Mountain.....	526	194	44	152	14	30	44	.....	.....	44	.....	.....	25	.....	.....	.....	26
Florida: Seminole.....	586	143	.....	143	.....	.....	.....	.....	.....	9	134	.....	.....	.....	.....	9	9
Idaho.....	4,168	1,075	207	868	63	364	90	517	172	16	77	280	130	210	20	86	726
Coeur d'Alene.....	826	211	29	183	13	.....	51	64	75	161	21	.....	60	80	.....	22	162
Fort Hall.....	1,760	437	62	365	13	240	14	267	22	16	56	200	20	20	20	60	330
Fort Lapwai.....	1,573	437	116	321	37	124	25	186	75	265	.....	80	50	100	.....	4	324
Iowa: Sac and Fox.....	260	105	10	95	23	46	51	120	.....	120	.....	80	70	.....	.....	.....	180
Kansas.....	1,421	516	45	471	93	90	183	.....	.....	140	148	71	.....	.....	.....	140	211
Kickapoo.....	640	217	17	200	27	90	117	.....	.....	157	43	71	.....	.....	.....	40	111
Potawatomie.....	781	277	28	249	44	144	44	.....	.....	100	105	.....	.....	.....	.....	100	100
Scattered.....	.....	22	.....	22	22	.....	22	.....	.....	22	.....	.....	.....	.....	.....	.....	.....
Michigan.....	1,097	687	87	600	412	.....	412	221	.....	96	729	.....	.....	332	.....	96	448
Macomb.....	1,097	310	87	223	35	.....	35	221	.....	96	332	.....	.....	332	.....	96	448
Scattered.....	.....	377	.....	377	377	.....	377	.....	.....	377	.....	.....	.....	.....	.....	.....	.....

Minnesota.	11,777	2,780	386	3,394	413	724	267	1,394	215	1,106	2,715	679	634	363	200	1,106	2,306
Fond du Lac.....	1,066	381	13	393	40	...	38	78	...	263	331	37	...	74	...	283	337
Grand Portage.....	1,271	491	4	48	...	...	31	23	...	67	85	4	...	30	...	87	77
Leech Lake.....	1,770	294	29	463	83	156	267	207	...	108	373	87	156	20	...	108	294
Nett Lake.....	607	201	3	...	...	133	44	151	...	...	181	20	110	80	...	...	170
Pipestone (Birch Coulee).....	1,402	475	17	416	46	140	7	194	107	27	374	14	...	...	...	11	16
Red Lake.....	1,482	477	17	410	...	140	...	194	107	11	374	14	...	...	...	11	16
White Earth.....	6,371	2,103	330	1,783	261	266	147	684	108	660	1,342	421	250	173	180	680	1,303
Scattered.....	...	...	...	...	33	...	...	33	...	...	83	...	...	...	...	...	...
Montana.	11,835	3,273	133	3,060	346	584	270	1,200	563	476	2,410	680	531	307	380	476	2,314
Blackfeet.....	2,752	992	35	987	57	123	60	298	114	18	430	237	144	60	145	18	397
Crow.....	1,710	473	12	461	...	130	...	187	63	73	461	...	147	...	125	75	517
Flathead.....	2,410	654	59	595	55	...	...	85	168	213	466	139	...	...	170	213	513
Fort Belknap.....	1,266	290	11	273	17	53	32	131	131	13	270	9	51	40	200	13	269
Fort Peck.....	1,986	477	21	458	53	134	91	263	60	136	452	4	120	130	40	136	409
Tongue River.....	1,461	315	45	270	20	86	38	194	43	23	259	11	60	57	60	23	239
Scattered.....	...	73	...	72	73	...	...	72	...	...	72	...	...	...	...	...	...
Nebraska.	3,617	1,305	61	1,144	457	...	...	457	185	297	939	205	...	...	247	297	544
Omaha.....	1,313	440	14	426	130	...	...	130	17	130	277	149	...	...	...	130	130
Santee.....	1,194	310	25	235	83	...	...	83	55	100	238	47	...	...	125	100	225
Winnebago.....	1,106	338	22	365	177	...	...	177	113	67	357	9	...	...	123	67	159
Scattered.....	...	67	...	67	67	...	...	67	...	...	67	...	...	...	...	...	...
Nevada.	7,944	1,623	227	1,396	263	72	233	562	...	543	1,135	261	130	224	...	543	907
Fallon.....	429	77	4	72	30	...	...	61	...	...	61	12	...	465	...	...	65
Fort McDermitt.....	350	100	2	96	9	...	...	63	62	...	62	26	...	80	...	...	80
Moapa River.....	120	33	1	32	12	...	...	31	...	1	32	...	...	20	...	1	21
Nevada.....	614	96	4	92	16	72	...	88	88	...	...	4	70	...	...	...	70
Walker River.....	705	135	37	98	26	...	...	73	...	...	73	26	60	69	...	...	60
Western Shoshone.....	625	132	29	133	4	...	...	101	101	542	101	52	...	...	...	...	69
Reno, special agent	5,100	1,000	150	950	176	...	...	176	...	...	718	132	...	...	...	542	542
New Mexico.	20,853	7,304	703	6,001	897	884	1,199	2,930	310	39	3,296	3,305	998	1,080	300	17	2,099
Abilene.....	645	169	30	139	10	101	...	111	...	4	115	24	108	...	...	4	112
Albuquerque.....	627	186	18	178	3	119	...	122	...	...	122	56	100	...	...	...	100
Pueblo Bonito.....	2,774	1,240	327	2,038	8	168	23	198	...	...	198	705	180	30	...	...	210
Pueblo day schools.....	8,700	2,554	96	2,463	768	966	966	1,784	310	13	2,109	849	962	200	34	13	1,179
San Juan.....	6,354	2,583	...	2,583	...	306	...	311	...	...	311	2,072	220	...	...	...	220
Zuni.....	1,503	520	26	494	37	140	181	338	37	...	396	99	80	118	30	...	228
Scattered.....	...	46	...	46	46	...	...	46	...	...	46	...	...	...	...	...	...
New York: Scattered.....	5,912	123	...	123	123	...	...	123	...	...	161	...	...	...	...	28	28
North Carolina: Cherokee.....	2,283	733	20	733	34	263	105	412	...	245	660	72	100	150	...	245	553

1 Attend Santee Mission School.
 80 attend Santee Mission School.

* Pupils may attend public schools same as whites.
 * 1916 report.

* Estimated.
 * Includes Cass Lake.

* Attend St. Boniface School, Maltri.
 * Includes pupils of reservation.

TABLE 17.—Indian and school population, number eligible for school attendance, number in schools, etc., and capacity of schools provided for Indian children during fiscal year ended June 30, 1917—Continued.

States and superintendencies.	Indian population.	Number of school age.	Ineligible for attendance.	Eligible for attendance.	Indian children in school.						Capacity all schools.				Total capacity all schools.			
					Government.			Mission and private.		Public.	Total in school.	Eligible children not in school.	Government.			Mission and private.		
					Non-reservation boarding.	Day.	Total.	Boarding.	Day.				Reservation boarding.	Day.		Boarding.	Day.	
North Dakota.	8,903	2,886	156	2,730	324	899	458	1,671	156	106	1,933	886	635	450	154	1,335
Fort Berthold.	1,182	845	17	328	78	1,665	74	152	91	.....	243	85	323	96	88	.....	194
Fort Totten.	1,022	800	19	281	5	1,665	370	572	66	.....	370	286	302	104	66	.....	238
Standing Rock.	3,453	942	13	924	91	351	253	534	.....	106	640	515	100	.....	106	.....	523
Turtle Mountain.	8,264	1,267	102	1,155	108	1,173	131	42	.....	106	640	515	100	.....	106	.....	265
Scattered.	.....	42	.....	42	42	.....	42	.....	.....	42	.....	.....	.....	.....	.....	.....	.....
Oklahoma.	116,419	31,809	343	31,466	2,624	1,795	36	4,455	878	21,054	412	2,554	65	990	85	21,054	24,748
Cantonment.	785	223	10	213	16	128	144	.....	.....	12	156	57	90	.....	12	.....	102
Cheyenne and Arapaho.	1,252	346	80	306	30	123	153	.....	.....	50	203	63	150	.....	45	.....	245
Kiowa.	4,554	1,413	81	1,320	130	619	779	16	.....	344	1,139	181	683	.....	60	.....	1,077
Osage.	2,180	913	62	851	22	129	131	20	.....	594	765	86	115	.....	75	.....	1,784
Ojibwa.	618	166	15	151	37	84	117	.....	.....	21	148	3	80	.....	31	.....	111
Pawnee.	714	203	3	200	67	73	140	.....	.....	55	195	8	100	.....	55	.....	155
Ponca.	1,045	361	10	351	71	126	197	.....	.....	154	251	.....	90	.....	154	.....	244
Sac and Fox.	1,682	254	33	221	49	88	137	.....	.....	80	217	4	80	.....	80	.....	160
Seeger.	753	206	12	191	16	97	36	.....	.....	33	182	12	79	65	.....	33	177
Seneca.	1,068	591	21	570	79	154	233	.....	.....	286	589	1	100	.....	286	.....	436
Shawnee.	1,757	299	13	256	46	144	190	.....	.....	75	393	.....	110	.....	200	.....	385
Total.	15,306	4,696	843	4,893	559	1,831	2,390	214	1,714	4,318	1,652	375	85	1,714	3,896
Five Civilized Tribes.	101,506	26,425	26,425	1,617	1,617	664	19,340	21,621	967	615	19,340	20,928
Cherokee Nation.	41,824	12,788	(¹)	12,788	339	.....	339	.....	.....	9,547	9,886	(¹)	110	.....	.....	9,547	9,687
Chickasaw Nation.	10,966	3,262	(¹)	3,262	41	.....	41	.....	.....	2,386	2,902	(¹)	.....	.....	.....	2,386	2,881
Choctaw Nation.	26,828	4,777	(¹)	4,777	626	626	3,968	4,413	(¹)	430	120	3,968	4,148

TABLE 17.—Indian and school population, number eligible for school attendance, number in schools, etc., and capacity of schools provided for Indian children during fiscal year ended June 30, 1917—Continued.

States and superintendencies.	Indian population.	Non-eligible for attendance.	Eligible for attendance.	Indian children in school.						Capacity all schools.				Total capacity all schools.					
				Government.			Mission and private.		Total in school.	Eligible children not in school.	Government.	Mission and private.							
				Non-reservation boarding.	Day.	Total.	Boarding.	Day.				Boarding.	Day.						
															Publio.				
Wisconsin.....	9,610	3,122	165	2,987	805	498	1,255	1,488	544	221	432	2,085	659	470	206	485	600	432	2,253
Grand Rapids.....	1,372	382	42	340	84	.....	.....	84	.....	.....	138	122	218	.....	.....	.....	.....	38	38
Hayward.....	1,277	427	30	397	220	.....	50	270	.....	.....	46	316	51	.....	74	.....	.....	46	120
Keshena.....	1,745	504	15	489	82	135	43	310	.....	243	102	655	81	170	80	220	120	60	560
Lea du Flambeau.....	1,749	206	10	196	28	125	.....	.....	.....	.....	.....	208	.....	160	.....	.....	.....	60	220
Leona.....	335	96	6	90	7	26	.....	.....	.....	.....	.....	61	54	.....	.....	.....	.....	28	28
La Pointe.....	1,046	344	56	288	78	.....	.....	78	216	78	.....	49	421	.....	200	460	40	49	739
Onida.....	2,875	878	4	874	267	162	.....	419	41	.....	141	601	33	140	.....	50	.....	141	331
Red Cliff.....	2,575	199	2	197	27	.....	.....	59	35	.....	70	164	28	.....	65	.....	.....	70	157
Scattered.....	511	.....	.....	57	87	.....	.....	210	99	.....	70	379	100	135	25	140	.....	70	270
Wyoming: Shoshone.....	1,674	508	29	479	17	167	26	210	99	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Alaska.....	332	332	.....	332	332	.....	.....	332	.....	.....	.....	332	.....	.....	.....	.....	.....	.....	.....
Maine.....	5	5	.....	5	5	.....	.....	5	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	.....
Maryland.....	1	1	.....	1	1	.....	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
Massachusetts.....	3	3	.....	3	3	.....	.....	3	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....
Minnesota.....	1	1	.....	1	1	.....	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
Missouri.....	1	1	.....	1	1	.....	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
Nebraska.....	7	7	.....	7	7	.....	.....	7	.....	.....	.....	7	.....	.....	.....	.....	.....	.....	.....
Pennsylvania.....	1	1	.....	1	1	.....	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
Porto Rico.....	2	2	.....	2	2	.....	.....	2	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....
Texas.....	6	6	.....	6	6	.....	.....	6	.....	.....	.....	6	.....	.....	.....	.....	.....	.....	.....
Total.....	258	.....	.....	258	358	.....	.....	358	.....	.....	.....	358	.....	8,569	.....	.....	.....	.....	8,569
Capacity.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

1 Attend mission school in Wisconsin.
 2 Includes 198 pupils at Hayward School.

3 Includes pupils off reservation.
 4 Attend Lea du Flambeau School.

5 Attend St. Mary's Mission School.
 6 Nonreservation schools not included above.

RECAPITULATION.

Indian children of school age.....	89,501
Indian children ineligible for school attendance because of illness, deformity, etc.....	6,126
Total Indian children eligible for school attendance.....	84,375
INDIAN CHILDREN IN SCHOOL	
Government schools:	
Nonreservation boarding.....	11,298
Reservation boarding.....	10,902
Day.....	6,558
Mission schools:	
Contract boarding.....	1,667
Noncontract—Boarding.....	3,296
Day.....	726
Private schools: Contract boarding.....	4,023
Public schools.....	5,689
	148
	29,178
Total all classes.....	63,768
Number eligible children not in school.....	16,799

¹ Includes eligible and ineligible children not reported in Oklahoma; the number of eligible pupils shown by this table as not in any school is somewhat less than the actual number, because in the other columns has been shown the total enrollment in the several schools, whereas not all those so enrolled have remained in attendance during the entire school year, and in a few cases there have been transfers from one school to another, thus duplicating the enrollment.

TABLE II. - Location, capacity, enrollment and attendance, etc., of schools during fiscal year ended June 30, 1917.

Department, location and names of schools.	Open 27	Total enroll- ment.	Average enroll- ment.	Average school days.	Class of school.
Grand total	22,404	24,595	29,718	25,204	
Arizona	5,475	5,422	5,451	4,489	
Camp Verde superintendency.....	66	74	68	52	
Camp Verde.....	20	25	22	17	Day.
Chachabala.....	20	40	46	25	Do.
Cochise River.....	80	193	94	89	Reservation boarding.
Fort Apache superintendency.....	272	427	418	288	
Fort Apache.....	200	261	242	227	Do.
Chino.....	42	42	28	25	Day.
Chino.....	50	25	24	21	Do.
Fort Verde.....	40	43	40	28	Do.
Chino.....	20	22	20	26	Mission day; Evangelical Lutheran.
Fort Verde.....	20	24	24	31	Do.
Fort Mojave.....	200	158	147	141	Nonreservation boarding.
Yuma.....	25	20	28	26	Day.
Yuma.....	22	19	15	13	Do.
Camp superintendency.....	183	128	128	115	
Camp.....	103	113	103	91	Reservation boarding.
Yuma.....	20	25	25	24	Mission boarding; Evangelical Lutheran.
Moqui superintendency.....	591	419	406	356	
Moqui.....	125				Reservation boarding.
Chino.....	65	43	43	38	Day.
Hotavilla-Moqui.....	65	118	110	105	Do.
Orabi.....	156	78	72	60	Do.
Moqui.....	100	116	112	99	Do.
Second Mesa.....	90	70	60	45	Do.
Navajo superintendency.....	1,070	1,086	971	886	
Navajo.....	350	302	208	257	Reservation boarding.
Chino.....	106	195	162	142	Do.
Chino.....	250	218	195	188	Do.
Corralito.....	25	30	27	16	Day.
Chino.....	60	27	22	13	Do.
Chino.....	35	47	42	38	Mission day; Presbyterian.
Chino.....	40	70	60	63	Mission boarding; Christian Reformed.
St. Michael's.....	180	200	185	160	Mission boarding; Catholic.
Phoenix.....	700	942	716	631	Nonreservation boarding.
Pima superintendency.....	819	851	770	674	
Pima.....	218	208	208	241	Reservation boarding.
Chino.....	36	43	41	29	Day.
Chino.....	40	24	21	28	Do.
Chino.....	40	23	20	14	Do.
Chino.....	40	13	12	9	Do.
Chino.....	30	34	23	17	Do.
Chino.....	40	39	36	31	Do.
Chino.....	40	36	36	34	Do.
Chino.....	40	30	29	17	Do.
St. John's (Chino).....	35	23	19	15	Mission day; Catholic.
St. John's.....	235	253	235	229	Mission boarding; Catholic.
St. Michael's.....	25				Mission day; Catholic.
San Antonio.....	216	253	223	201	Reservation boarding.
San River superintendency.....	138	118	106	89	
San River.....	35	33	24	64	Day.
Camp McPherson.....	40				Do.
San.....	30	33	31	25	Do.

* Not in operation.

* Not reported.

TABLE 18.—*Location, capacity, enrollment and attendance, etc., of schools during fiscal year ended June 30, 1917—Continued.*

Superintendences and names of schools.	Capacity.	Total enrollment.	Average enrollment.	Average attendance.	Class of school.
Arizona—Continued.					
San Carlos superintendency.....	165	176	168	155	
San Carlos.....	100	101	95	90	Day.
Byas.....	40	51	49	45	Do.
Rice.....	25	24	24	20	Mission day; Evangelical Lutheran.
San Xavier superintendency.....	480	476	429	358	
San Xavier.....	155	124	109	96	Day.
Indian Oasis.....	30	26	15	12	Do.
Santa Rosa.....	30	20	20	13	Do.
Tucson.....	35	40	26	20	Do.
Lourdes.....	30	35	34	19	Mission day; Catholic.
St. Anthony's.....	30	44	44	31	Do.
San Miguel.....	20	23	22	16	Do.
San Solano.....	20	17	16	14	Do.
Tucson.....	130	147	140	137	Mission boarding; Presbyterian.
Truxton Canon.....	140	107	105	101	Reservation boarding.
Western Navajo superintendency	373	236	217	204	
Western Navajo.....	308	165	147	137	Do.
Marsh Pass.....	30	32	31	29	Do.
Moencop.....	35	39	39	33	Day.
California.....	1,960	2,061	1,778	1,490	
Bishop superintendency.....	140	130	112	94	
Bishop.....	60	65	54	44	Day.
Big Pine.....	30	30	18	16	Do.
Independence.....	20	17	14	11	Do.
Pine Creek.....	30	28	26	23	Do.
Campo.....	30	11	11	11	Do.
Fort Bidwell superintendency...	160	149	123	109	
Fort Bidwell.....	98	105	92	87	Nonreservation boarding.
Alturas.....	24	12	7	4	Day.
Likely.....	20	17	12	9	Do.
Lookout.....	18	15	12	9	Do.
Fort Yuma superintendency.....	220	234	219	199	
Fort Yuma.....	180	203	195	177	Reservation boarding.
Cocopah.....	40	31	24	22	Day.
Greenville.....	90	122	101	88	Nonreservation boarding.
Hoopa Valley.....	165	201	156	143	Reservation boarding.
Malki superintendency: St. Boniface.	100	125	125	90	Catholic Mission boarding.
Pala superintendency.....	98	79	70	55	
Pala.....	30	29	25	23	Day.
Capitan Grande.....	24	15	12	9	Do.
La Jolla.....	30	22	20	14	Do.
Rincon.....	14	13	13	10	Do.
Round Valley superintendency..	151	94	66	50	
Round Valley.....	80	29	22	15	Do.
Potter Valley.....	16	12	11	9	Do.
Ukiah.....	25	23	15	12	Do.
Upper Lake.....	30	30	18	14	Do.
Sherman.....	650	737	680	577	Nonreservation boarding.
Soboba superintendency.....	90	48	43	35	
Cahulla.....	30	11	10	9	Day.
Mesa Grande.....	30	14	12	11	Do.
Volcan.....	30	23	21	15	Do.
Tule River superintendency.....	86	81	72	48	
Tule River.....	30	17	16	10	Do.
Auberry.....	32	34	27	20	Do.
Burrough.....	24	30	29	18	Do.

TABLE 18.—*Location, capacity, enrollment and attendance, etc., of schools during fiscal year ended June 30, 1917—Continued.*

Superintendencies and names of schools.	Capacity.	Total enrollment.	Average enrollment.	Average attendance.	Class of school.
Colorado.....	105	129	108	96	
Southern Ute superintendency...	80	99	82	74	
Southern Ute.....	50	58	68	60	Reservation boarding.
Allen.....	30	16	14	14	Day.
Ute Mountain.....	25	30	26	22	Do.
Idaho.....	640	642	515	388	
Coeur d'Alene superintendency..	140	126	107	90	
Kalispel.....	30	24	19	12	Do.
Kootenai.....	30	27	25	23	Do.
De Smet.....	80	78	68	55	Mission boarding; Catholic.
Fort Hall superintendency.....	270	292	209	148	
Fort Hall.....	200	240	158	116	Reservation boarding.
Skull Valley.....	20	14	13	8	Day.
Good Shepherd.....	30	22	22	16	Mission boarding; Episcopalian.
Presbyterian Mission.....	20	16	16	8	Mission day; Presbyterian.
Fort Lapwai superintendency....	230	224	199	150	
Sanatorium and school.....	80	124	108	84	Boarding.
Kamiah.....	50	25	21	14	Day.
St. Joseph's.....	100	75	75	52	Mission boarding; Catholic.
Iowa.....	180	97	94	71	
Sac and Fox superintendency....	150	97	94	71	
Sanatorium and school.....	80	46	46	35	Boarding.
Fox.....	40	20	19	15	Day.
Mequakie.....	30	31	29	21	Do.
Kansas.....	771	914	794	707	
Haskell.....	700	824	711	628	Nonreservation boarding.
Kickapoo.....	71	90	83	79	Reservation boarding.
Michigan.....	702	595	558	522	
Mackinac superintendency.....	352	221	208	196	
Baraga (Holy Name).....	152	90	83	73	Mission boarding and day; Catholic.
Harbor Springs (Holy Childhood).	200	131	125	123	Mission boarding; Catholic.
Mount Pleasant.....	350	374	350	326	Nonreservation boarding.
Minnesota.....	1,409	1,414	1,286	1,077	
Cass Lake.....	40	50	45	43	Reservation boarding.
Fond du Lac superintendency...	74	38	29	18	
Fond du Lac.....	40	18	12	8	Day.
Normantown.....	34	20	16	10	Do.
Grand Portage.....	30	21	18	13	Do.
Leech Lake.....	116	135	101	86	Reservation boarding.
Nett Lake.....	60	44	41	33	Day.
Pipestone superintendency.....	248	225	208	189	
Pipestone.....	212	218	196	185	Nonreservation boarding.
Birch Cooley.....	36	7	7	4	Day.
Red Lake superintendency.....	188	257	234	200	
Red Lake.....	75	91	79	67	Reservation boarding.
Cross Lake.....	43	59	57	55	Do.
St. Mary's.....	70	107	98	78	Contract mission boarding Catholic.

TABLE 18.—*Location, capacity, enrollment and attendance, etc., of schools during fiscal year ended June 30, 1917—Continued.*

Superintendencies and names of schools.	Capacity.	Total enrollment.	Average enrollment.	Average attendance.	Class of school.
Minnesota—Continued.					
Vermillion Lake.....	110	133	134	117	Reservation boarding.
White Earth superintendency.....	553	511	441	378	
White Earth.....	250	256	211	193	Do.
Beaulieu.....	30	35	31	26	Day.
Elbow Lake.....	30	15	13	10	Do.
Pine Point.....	53	40	32	21	Do.
Round Lake.....	30	25	22	16	Do.
Twin Lake.....	30	32	28	23	Do.
St. Benedict's.....	130	108	104	86	Mission boarding; Catholic.
Montana.....	1,838	1,588	1,329	1,137	
Blackfeet superintendency.....	349	325	253	214	
Blackfeet.....	144	152	128	111	Reservation boarding.
Heart Butte.....	30	27	21	15	Day.
Old Agency, Badger Creek.....	30	32	26	21	Do.
Holy Family.....	145	114	78	67	Mission boarding; Catholic.
Crow superintendency.....	442	359	325	286	
Crow.....	100	84	70	57	Reservation boarding.
Pryor Creek.....	47	46	40	33	Do.
Black Lodge.....	30	28	26	24	Mission day; American Missionary Society.
Lodge Grass.....	50	31	28	24	Mission day; Baptist.
Reno.....	35	30	71	71	Mission day; American Missionary Society.
St. Ann's.....	25	17	17	13	Mission day; Catholic.
San Xavier.....	125	58	56	55	Mission boarding; Catholic.
Wyoala.....	30	15	15	9	Mission day; Baptist.
Flathead superintendency.....	300	168	138	130	
St. Ignatius.....	300	168	138	130	Mission boarding; Catholic.
Fort Belknap superintendency.....	251	235	188	152	
Fort Belknap.....	51	52	65	51	Reservation boarding.
Lodge Pole.....	40	32	26	17	Day.
St. Paul's.....	160	121	97	84	Mission boarding; Catholic.
Fort Peck superintendency.....	280	285	242	204	
Fort Peck.....	120	134	118	105	Reservation boarding.
No. 1.....	30	21	16	11	Day.
No. 2.....	30	34	24	17	Do.
No. 3.....	30	7	6	5	Do.
No. 4.....	30	29	23	18	Do.
Wolf Point.....	40	60	55	48	Mission boarding and day Presbyterian.
Tongue River superintendency.....	216	216	183	151	
Tongue River.....	69	86	70	56	Reservation boarding.
Birney.....	47	50	42	34	Day.
Lame Deer.....	40	38	30	24	Do.
St. Labre's.....	60	42	41	37	Contract mission boarding; Catholic.
Nebraska.....	647	667	569	527	
Genoa.....	400	482	395	368	Nonreservation boarding.
Santee superintendency—Santee Normal Training.....	125	152	141	129	Mission boarding and day; Congregational.
Winnebago superintendency—St. Augustine.....	122	33	33	30	Mission boarding; Catholic.
Nevada.....	650	633	566	498	
Carson.....	286	323	298	280	Nonreservation boarding.
Fallon superintendency.....	65	31	24	14	
Fallon.....	40	18	12	5	Day.
Lovelocks.....	25	15	12	9	Do.

TABLE 18.—*Location, capacity, enrollment and attendance, etc., of schools during fiscal year ended June 30, 1917—Continued.*

Superintendencies and names of schools.	Capacity.	Total enrollment.	Average enrollment.	Average attendance.	Class of school.
Nevada—Continued.					
Fort McDermitt.....	80	53	40	32	Day.
Mosapa River.....	20	19	18	16	Do.
Nevada.....	70	72	68	64	Reservation boarding.
Walker River.....	60	38	33	24	Day.
Western Shoshone superintendency.	60	97	85	68	
No. 1.....	35	51	43	33	Do.
No. 2.....	34	46	42	35	Do.
New Mexico.....	2,792	3,263	2,911	2,606	
Albuquerque.....	400	473	447	430	Nonreservation boarding.
Jicarilla.....	108	101	94	86	Reservation boarding.
Mescalero.....	100	119	116	113	Do.
Pueblo Bonito superintendency..	210	190	179	174	
Pueblo Bonito.....	180	168	158	156	Do.
Pinedale.....	30	22	21	18	Day.
Pueblo day school superintendency.	1,166	1,308	1,184	975	
Albuquerque—					
Acomita.....	32	28	25	21	Do.
Encinal.....	30	23	20	15	Do.
Isleta.....	120	112	107	91	Do.
Laguna.....	34	61	49	39	Do.
McCarty's.....	38	34	30	24	Do.
Mesita.....	38	40	33	29	Do.
Paguata.....	60	81	75	61	Do.
Paraje.....	20	39	38	33	Do.
San Felipe.....	60	59	58	46	Do.
Seama.....	28	37	32	26	Do.
Bernalillo.....	125	180	110	101	Mission boarding; Catholic.
Santa Fe—					
Cochiti.....	28	32	26	23	Day.
James.....	120	86	82	59	Do.
Picuris.....	24	26	25	25	Do.
San Ildefonso.....	40	22	20	14	Do.
San Juan.....	70	60	54	46	Do.
Santa Clara.....	40	62	58	35	Do.
Santa Domingo.....	50	79	70	65	Do.
Sis.....	30	17	17	15	Do.
Taos.....	70	98	88	57	Do.
James.....	34	2	2	2	Mission day.
St. Catherine's.....	75	100	155	140	Mission boarding; Catholic.
San Juan superintendency.....	230	306	237	190	
San Juan.....	150	259	195	151	Reservation boarding.
Toedlens.....	80	47	42	39	Do.
Santa Fe.....	350	408	363	352	Nonreservation boarding.
Zuni superintendency.....	228	358	311	286	
Zuni.....	80	140	117	110	Reservation boarding.
Do.....	118	181	157	142	Day.
Christian Reformed.....	30	37	37	34	Mission day; Christian Reformed.
North Carolina.....	310	358	317	243	
Cherokee superintendency.....	310	358	317	243	
Cherokee.....	160	253	233	194	Reservation boarding.
Big Cove.....	40	21	16	10	Day.
Birdtown.....	40	39	31	18	Do.
Little Snowbird.....	30	18	13	8	Do.
Snowbird Gap.....	40	27	24	18	Do.

TABLE 18.—*Location, capacity, enrollment and attendance, etc., of schools during fiscal year ended June 30, 1917—Continued.*

Superintendencies and names of schools.	Capacity.	Total enrollment.	Average enrollment.	Average attendance.	Class of school.
North Dakota.....	1,509	1,867	1,484	1,014	
Bismarck.....	80	128	99	72	Nonreservation boarding.
Fort Berthold superintendency..	184	166	133	108	
No. 1.....	80	22	17	12	Day.
No. 2.....	86	26	23	18	Do.
No. 3.....	80	27	24	22	Do.
Fort Berthold ¹	76	79	68	41	Mission boarding.
Congregational ¹	13	12	12	10	Mission boarding; Congrega- tional.
Fort Totten.....	328	538	401	202	Reservation boarding.
Standing Rock superintendency..	562	647	487	418	
Standing Rock.....	202	244	211	184	Do.
Martin Kanel.....	100	107	108	91	Do.
Bullhead.....	40	34	29	26	Day.
Cannon Ball.....	40	80	28	20	Do.
Grand River.....	30	18	17	13	Do.
Little Oak Creek.....	40	23	20	15	Do.
Porcupine.....	24	11	11	10	Do.
No. 1.....	20	15	10	8	Do.
St. Elizabeth's.....	50	52	45	41	Mission boarding; Episcopal.
Standing Rock Mission.....	16	13	13	11	Mission boarding.
Turtle Mountain superintend- ency.	100	253	184	94	
No. 1.....	40	46	29	20	Day.
No. 2.....	80	67	48	22	Do.
No. 3.....	80	32	24	15	Do.
No. 4.....	80	75	58	26	Do.
No. 5.....	80	88	26	12	Do.
Wahpeton.....	200	216	180	125	Nonreservation boarding.
Oklahoma.....	4,194	4,589	3,989	3,007	
Cantonment.....	90	128	110	85	Reservation boarding.
Cheyenne and Arapaho superin- tendency.	195	123	109	108	
Cheyenne and Arapaho.....	150	123	109	108	Do.
St. Luke's ²	45				Mission day; Episcopal.
Chilocco.....	500	676	598	529	Nonreservation boarding.
Kiowa superintendency.....	683	665	617	567	
Anadarko.....	110	143	135	121	Reservation boarding.
Fort Sill.....	160	175	171	168	Do.
Rainy Mountain.....	155	167	146	124	Do.
Riverside.....	168	164	151	140	Do.
Catch Creek.....	50	16	14	14	Mission boarding; Reformed Presbyterian.
Red Stone ³	40				Mission day; Baptist.
Osage superintendency.....	190	149	128	109	
Osage.....	115	129	112	95	Reservation boarding.
St. Louis's.....	75	20	16	14	Contract Mission boarding; Catholic.
Otoe.....	80	84	77	70	Reservation boarding.
Pawnee.....	100	73	68	66	Do.
Ponca.....	90	126	115	108	Do.
Red Moon.....	65	26	29	24	Day.
Sac and Fox.....	80	88	64	53	Reservation boarding.
Sage.....	79	97	84	77	Do.
Seneca superintendency.....	150	204	181	171	
Seneca.....	100	154	189	132	Do.
St. Mary's.....	50	50	42	39	Contract mission boarding; Catholic.

¹ Report of 1916.

² Abolished.

³ Not in operation.

TABLE 18.—*Location, capacity, enrollment and attendance, etc., of schools during fiscal year ended June 30, 1917—Continued.*

Superintendencies and names of schools.	Capacity.	Total enrollment.	Average enrollment.	Average attendance.	Class of school.
Oklahoma—Continued.					
Shawnee superintendency.....	310	373	225	207	
Shawnee.....	110	144	114	100	Reservation boarding.
Sacred Heart (St. Benedict's)	100	43	40	37	Mission boarding; Catholic.
Sacred Heart (St. Mary's)....	100	85	71	70	Do.
Total, Western Oklahoma.	2,612	2,721	2,405	2,174	
Five Civilized Tribes.....	1,582	1,868	1,584	1,433	
Cherokee Nation; Cherokee Orphan School.	110	170	143	126	Tribal boarding.
Creek Nation.....	327	374	341	321	
Euchee.....	100	124	116	110	Do.
Eufaula.....	112	124	111	106	Do.
Nuyaka.....	115	126	114	105	Do.
Chickasaw Nation.....	85	45	45	39	
Collins.....					Do.
El Meta Bond College....	85	45	45	39	Contract; private boarding.
Choctaw Nation.....	550	708	576	523	
Armstrong Male Academy.	120	142	112	95	Tribal boarding.
Jones Male Academy.....	100	125	111	103	Do.
Tuskahoma Academy.....	110	123	112	103	Do.
Wheelock Academy.....	100	129	101	95	Do.
Old Goodland.....	80	124	85	76	Contract; mission boarding; Presbyterian.
St. Agnes Mission.....	40	65	55	51	Contract; mission boarding; Catholic.
Chickasaw and Choctaw Nation.	490	430	363	324	
Murray School of Agriculture.	150	103	98	82	Contract; mission boarding; private.
Oklahoma Presbyterian College.	50	58	47	41	Contract; mission boarding; Presbyterian.
St. Agnes Academy.....	160	178	134	122	Contract; mission boarding; Catholic.
St. Elizabeth's.....	70	68	61	57	Do.
St. Joseph's.....	30	23	23	22	Do.
Seminole Nation.....	100	141	116	100	
Mekuskey.....	100	141	116	100	Tribal boarding.
Oregon.....	1,335	1,383	1,044	852	
Klamath superintendency.....	263	246	156	123	
Klamath.....	112	165	94	78	Reservation boarding.
Modoc Point.....	30	19	15	10	Day.
Yainax.....	30	15	11	7	Do.
No. 1.....	30	21	15	11	Do.
No. 2.....	30	11	8	5	Do.
No. 3.....	30	15	13	12	Do.
Salem.....	650	764	578	456	Nonreservation boarding
Siletz.....	50	31	26	18	Day.
Umatilla superintendency.....	243	212	174	156	
Umatilla.....	93	142	121	109	Reservation boarding.
St. Andrew's (Kate Drexel).	150	70	53	47	Mission boarding; Catholic.
Warm Springs superintendency.	130	130	110	99	
Warm Springs.....	100	109	92	85	Reservation boarding.
Simnasho.....	30	21	18	14	Day.
Pennsylvania: Carlisle.....	757	821	708	438	Nonreservation boarding

¹ Buildings burned May 9, 1916; abolished Oct. 12, 1917.

TABLE 18.—*Location, capacity, enrollment and attendance, etc., of schools during fiscal year ended June 30, 1917—Continued.*

Superintendencies and names of schools.	Capacity.	Total enrollment.	Average enrollment.	Average attendance.	Class of school.
South Dakota.....	4,126	3,928	3,303	2,676	
Cheyenne River superintendency	942	267	220	194	
Cheyenne River.....	180	200	180	156	Reservation boarding.
No. 2.....	20	19	16	13	Day.
No. 7.....	22	18	15	10	Do.
No. 8.....	20	20	18	15	Do.
Crow Creek superintendency.....	157	143	120	123	
Crow Creek.....	82	92	80	76	Reservation boarding.
Immaculate Conception.....	75	51	49	47	Contract; mission boarding; Catholic.
Flandreau.....	260	402	334	230	Nonreservation boarding.
Lower Brule.....	100	82	70	64	Reservation boarding.
Pierre.....	250	208	227	195	Nonreservation boarding.
Pine Ridge superintendency.....	1,273	1,088	850	653	
Pine Ridge.....	210	308	223	106	Reservation boarding.
No. 1.....	25	24	20	15	Day.
No. 3 ¹	23	6	6	4	Do.
No. 4.....	30	23	21	19	Do.
No. 5.....	30	27	21	26	Do.
No. 6.....	30	23	19	13	Do.
No. 7.....	33	27	20	14	Do.
No. 8 ¹	33	1	1	1	Do.
No. 9.....	30	21	16	12	Do.
No. 10.....	33	24	17	12	Do.
No. 11.....	30	9	8	6	Do.
No. 12.....	30	16	12	9	Do.
No. 13.....	24	13	11	7	Do.
No. 14.....	22	15	12	7	Do.
No. 15.....	24	19	15	13	Do.
No. 16.....	35	25	19	9	Do.
No. 17.....	30	28	21	15	Do.
No. 18.....	33	26	22	17	Do.
No. 19.....	30	24	15	10	Do.
No. 20.....	24	25	21	16	Do.
No. 21.....	30	18	14	10	Do.
No. 22.....	27	30	16	5	Do.
No. 23.....	30	14	13	9	Do.
No. 24.....	33	31	24	12	Do.
No. 25.....	30	8	8	7	Do.
No. 26.....	30	22	17	12	Do.
No. 27.....	20	15	12	9	Do.
No. 28.....	23	15	13	10	Do.
No. 29.....	30	11	10	7	Do.
No. 30.....	20	15	12	6	Do.
Holy Rosary.....	240	225	191	175	Contract mission boarding; Catholic.
Rapid City.....	300	232	266	191	Nonreservation boarding.
Rosebud superintendency.....	1,136	991	888	753	
Rosebud.....	200	277	250	227	Reservation boarding.
Black Pipe.....	20	28	26	22	Day.
Bull Creek ¹	32	5	4	4	Do.
Corn Creek.....	40	23	17	12	Do.
Cut Meat.....	24	16	15	13	Do.
He-Dogs Camp.....	27	27	24	20	Do.
Ironwood.....	24	12	12	11	Do.
Little Crow's Camp.....	26	22	17	14	Do.
Little White River ¹	26	5	5	5	Do.
Lower Cut Meat ¹	27				
Milk's Camp.....	29	21	18	13	Do.
Oak Creek.....	26	24	20	15	Do.
Pine Creek.....	25	28	20	14	Do.
Red Leaf.....	23	14	12	10	Do.
Ring Thunder ¹	28	6	6	5	Do.
Rosebud.....	25	9	8	7	Do.
Spring Creek.....	26	14	13	11	Do.
Upper Cut Meat.....	21	14	11	9	Do.
Whirlwind Soldier.....	26	16	11	6	Do.
White Lake.....	19	14	10	7	Do.
White Thunder ¹	27	6	6	5	Do.

¹ Abolished during fiscal year.² Not in operation.

TABLE 18.—*Location, capacity, enrollment and attendance, etc., of schools during fiscal year ended June 30, 1917—Continued.*

Superintendencies and names of schools.	Capacity.	Total enrollment.	Average enrollment.	Average attendance.	Class of school.
South Dakota—Continued.					
Rosebud superintendency—Con.					
Wood.....	25	20	18	16	Days.
St. Mary's.....	70	59	56	47	Mission boarding; Episcopal.
St. Francis's.....	325	330	309	260	Contract mission boarding; Catholic.
Sisseton.....	133	147	132	125	Reservation boarding.
Springfield.....	60	75	68	60	Nonreservation boarding.
Yankton.....	115	123	101	88	Reservation boarding.
Utah.....	127	113	96	79	
Goshute ¹	30	.....	.....	.....	Day.
Shivwits.....	40	28	22	15	Do.
Uintah.....	67	85	74	64	Reservation boarding.
Washington.....	1,587	1,438	1,186	970	
Colville superintendency.....	355	283	225	177	
No. 1.....	25	22	16	10	Day.
No. 3.....	30	31	23	18	Do.
No. 4.....	30	33	25	16	Do.
No. 5.....	30	28	23	19	Do.
No. 6.....	25	23	19	11	Do.
No. 9.....	25	23	20	18	Do.
Sacred Heart.....	90	39	30	24	Mission boarding; Catholic.
St. Mary's.....	100	83	69	61	Do.
Cushman superintendency.....	515	526	411	344	
Cushman.....	350	363	284	240	Nonreservation boarding.
Jamestown.....	30	22	17	14	Day.
Port Gamble.....	25	25	20	15	Do.
Skokomish.....	40	30	18	8	Do.
St. George's.....	70	86	72	67	Mission boarding; Catholic.
Neah Bay superintendency.....	120	111	100	74	
Neah Bay.....	60	63	57	39	Day.
Quilteute.....	60	48	43	35	Do.
Spokane superintendency.....	90	68	55	36	
No. 1.....	33	17	14	12	Do.
No. 2.....	32	34	27	15	Do.
No. 8.....	25	17	14	9	Do.
Taholah superintendency.....	76	56	49	42	
Taholah.....	36	41	40	34	Do.
Queets River.....	40	15	9	8	Do.
Tulalip superintendency.....	250	268	228	202	
Tulalip.....	180	208	183	170	Reservation boarding.
Lummi.....	40	36	24	14	Day.
Swinomish.....	30	24	21	18	Do.
Yakima.....	131	127	118	96	Reservation boarding.
Wisconsin.....	2,437	2,191	1,858	1,566	
Hayward superintendency.....	306	343	285	195	
Hayward.....	231	293	240	159	Nonreservation boarding.
La Courte Oreille.....	74	50	45	36	Day.
Keahena superintendency.....	590	573	500	424	
Keahena.....	170	185	164	147	Reservation boarding.
Neopit.....	80	43	30	17	Day.
St. Joseph's.....	220	243	215	192	Contract mission boarding; Catholic.
St. Anthony's.....	120	102	91	68	Mission day; Catholic.

¹ Not in operation.

TABLE 18.—*Location, capacity, enrollment and attendance, etc., of schools during fiscal year ended June 30, 1917—Continued.*

Superintendencies and names of schools.	Capacity.	Total enrollment.	Average enrollment.	Average attendance.	Class of school.
Wisconsin—Continued.					
Lac du Flambeau.....	160	151	139	131	Reservation boarding.
La Pointe superintendency.....	690	244	278	250	
Odanah Mission.....	490	78	78	80	Mission day; Catholic.
St. Mary's.....	200	266	200	200	Mission boarding; Catholic.
Oneida superintendency.....	190	203	200	186	
Oneida.....	140	162	159	150	Reservation boarding.
Adventist Mission.....	25	25	25	20	Mission day; Adventist.
Robert Mission.....	25	16	16	16	Mission day; Episcopal.
Red Cliff superintendency.....	117	67	64	56	
Red Cliff.....	52	32	29	22	Day.
Bayfield (Holy Family).....	65	35	35	34	Mission boarding; Catholic.
Tornah.....	275	374	262	204	Nonreservation boarding.
Wirtenberg.....	110	136	125	120	Do.
Wyoming.....	300	292	272	232	
Shoshone superintendency.....	300	292	272	232	
Shoshone.....	135	167	157	143	Reservation boarding.
Arapaho.....	25	26	21	15	Day.
St. Stephen's.....	120	83	78	59	*Contract mission boarding; Catholic.
Shoshone Mission.....	30	16	16	15	Mission boarding; Episcopal.

TABLE 19.—*School statistics for 41 years.¹*

INDIAN SCHOOLS AND AVERAGE ATTENDANCE FROM 1877 TO 1917.

Year.	Boarding schools.		Day schools. ²		Total.	
	Number.	Average attendance.	Number.	Average attendance.	Number.	Average attendance.
1877.....	48	.....	102	.....	150	3,598
1878.....	49	.....	119	.....	168	4,142
1879.....	52	.....	107	.....	159	4,448
1880.....	60	.....	109	.....	169	4,651
1885.....	114	6,201	86	1,942	200	5,143
1890.....	140	9,865	106	2,367	246	12,232
1895.....	157	15,061	126	3,127	283	18,188
1900.....	153	17,708	154	3,860	307	21,568
1905.....	167	21,812	145	3,643	312	25,455
1910.....	158	20,106	227	4,899	385	24,945
1911.....	156	18,774	227	4,873	383	23,647
1912.....	*170	20,973	242	5,308	412	26,281
1913.....	*168	20,607	230	5,223	398	25,830
1914.....	*166	20,853	223	5,269	389	26,127
1915.....	*180	20,702	228	5,426	388	26,128
1916.....	*182	*20,083	228	*5,220	400	*25,303
1917.....	*160	*20,368	234	*4,925	394	*25,294

¹ For other years see 1913 report.

² Indian children in public schools under contract are included in the average attendance, but the schools are not included in the number of schools.

³ Includes Five Tribes, boarding schools.

⁴ The decrease in attendance is due to a different method of computation. Formerly the average attendance was the average of three-quarters having the greatest attendance. The year's attendance has been computed for 10 months, including September, when the attendance is always small.

TABLE 19.—*School statistics for 41 years—Continued.*

APPROPRIATIONS MADE FOR SCHOOLS BY THE GOVERNMENT SINCE 1876.

Year.	Appropriation.	Per cent increase.	Year.	Appropriation.	Per cent increase.
1877.....	\$20,000		1899.....	\$2,638,300	0.25
1878.....	30,000	50.00	1900.....	2,936,060	11.28
1879.....	60,000	100.00	1901.....	3,080,367	4.91
1880.....	75,000	25.00	1902.....	3,244,260	5.32
1881.....	75,000		1903.....	3,531,260	8.84
1882.....	135,000	80.00	1904.....	3,532,960	1.23
1883.....	487,200	260.00	1905.....	3,830,740	10.15
1884.....	675,200	38.00	1906.....	3,777,100	12.67
1885.....	992,800	47.00	1907.....	3,928,890	3.98
1886.....	1,100,065	10.00	1908.....	4,106,715	4.58
1887.....	1,211,415	10.00	1909.....	4,008,825	12.26
1888.....	1,179,918	12.60	1910.....	3,787,909	6.26
1889.....	1,348,015	14.00	1911.....	3,686,900	1.98
1890.....	1,364,668	1.00	1912.....	3,787,495	1.96
1891.....	1,842,770	35.00	1913.....	4,015,720	6.87
1892.....	2,291,050	24.30	1914.....	4,408,855	9.65
1893.....	2,315,012	1.04	1915.....	4,678,627	6.25
1894.....	2,243,497	3.50	1916.....	4,391,155	6.14
1895.....	2,060,095	8.87	1917.....	4,701,903	7.08
1896.....	2,056,318	12.00	1918.....	5,185,290	10.28
1897.....	2,517,265	22.45			
1898.....	2,631,771	4.54	Total since 1876.....	108,942,195	

¹ Decrease.² Includes \$400,000 for Indian school and agency buildings.³ Includes \$440,000 for Indian school and agency buildings.⁴ Includes \$430,000 for Indian school and agency buildings.⁵ Includes \$300,000 for Indian school buildings, Sioux reservations, North and South Dakota.TABLE 20.—*Demonstration farms, fiscal year ended June 30, 1917.*

States and superintendencies.	Acreage.	Value.	Value of tools and implements.	Employees engaged.		Value of products.				
				Number.	Wages.	Raised.	Consumed.	Sold.	On hand.	
Grand total.....	1,465	\$54,040	\$7,562	16	\$3,740	\$5,535	\$3,198	\$324	\$2,118	
Arizona.....			1,140	3	830	830	40		780	
Kaibab.....	(1)	(1)	530	1	200					
San Xavier.....	(2)	(2)	620	2	630	830	40		780	
California: Campo.....	8	120					400			
Idaho: Fort Hall.....	200	3,270								
Montana: Blackfeet.....	48	960	605							
Nebraska.....	110	9,750	3,522	2	600	997	472	90	435	
Santee.....	20	2,100								
Winnebago.....	90	7,650	3,522	2	600	997	472	90	435	
North Dakota: Fort Berthold.....	638	6,380	445	8	1,080	3,028	1,991	124	908	
Oklahoma: Cheyenne and Arapaho.....	410	\$2,800								
Oregon: Klamath.....	40	400	1,850	2	1,080	990	260			
Utah: Shivwits.....	6	360		1	180					

¹ Not reported.² Leased.³ Only items reported.⁴ 1916 report.

TABLE 21.—*Experimentation farms, fiscal year ended June 30, 1917.*

States and superintendencies.	Acre- age.	Value.	Value of tools and imple- ments.	Employees en- gaged.		Value of products.			
				Num- ber.	Wages.	Raised.	Con- sumed.	Sold.	On hand.
Grand total.....	59	\$908	.....	7	\$426	\$350	\$100	.....	\$250
Arizona: Salt River.....	¹ 10	\$00	(*)	5	250	100	100	.....	.....
Montana: Crow.....	1	50	.....	1	25	250	.....	.....	250
New Mexico: Pueblo day schools.....	47	418	.....	1	150	.....	.....	.....	.....
North Dakota: Standing Rock.....	1	25	.....	.....	.....	.....	.....	.....	.....

¹ Borrowed Indian lands.² Agency tools used.

TABLE 22.—*Suppression of liquor traffic among Indians, fiscal year ended June 30, 1917.*

States.	Paid deputy-lives employed.	Cases pending July 1, 1916.	New cases, fiscal year 1917.	Total cases, 1917.	Disposition of cases.				Fined and imprisoned.			Seizure of liquors (gallons).						
					Convictions.	Dismissals.	Acquittals.	Died, escaped, or bonds forfeited.	Total cases disposed of.	Cases pending June 30, 1917.	Num-ber.	Fines.	Term (months).	Whisky.	Alcohol.	Malt.	Wine.	Miscellaneous.	Total.
Total, 1917.....	46	2,369	2,371	4,740	966	568	86	151	1,661	8,079	\$94,643	3,163	5,096	492	7,571	3,498	1,997	18,632
1916.....	29	2,159	2,161	3,778	906	410	73	23	1,409	2,390	\$85,763	2,603	5,907	511	9,973	3,968	1,192	21,539
1915.....	38	1,621	1,619	3,808	1,237	817	73	22	1,649	2,159	\$102,067	3,662	2,468	186	15,558	687	2,228	30,947
1914.....	58	1,865	1,705	3,070	1,384	449	17	9	1,449	1,631	\$83,304	3,639	6,207	480	14,419	267	9,384	36,180
1913.....	67	1,004	1,064	2,068	533	114	17	9	668	1,265	\$80,281	1,690	7,214	472	17,181	898	487	26,180
1912.....	154	846	1,480	2,326	1,002	267	32	21	1,322	1,004	\$67,637	3,005	6,537	513	22,314	477	621	31,462
1911.....	143	596	1,717	2,313	1,168	265	34	80	1,547	766	\$80,463	3,260	18,406	1,470	7,773	2,508	5,300	35,544
1900.....			7 463			18		3	118	345								
Arizona.....	2	60	76	136	67	13		3	83	83	1,635	70	154	2		1	286	381
Arkansas.....		13	4	16	5	5	1		6	6	400		6					7
California.....	2	36	119	155	97	7		2	106	49	4,464	178	101	2	174	3	17	278
Colorado.....	1	10	1	11		1			3	8	100	3	28					41
Florida.....		4																
Idaho.....	1	69	77	146	42	22	1	9	74	72	6,268	128			4			4
Iowa.....		17	15	32	7	1			8	24	600	17			76			
Kansas.....		15	9	24	10	7			17	7	686	9	137					
Michigan.....		2																
Minnesota.....	1	212	284	786	164	168	17	10	360	377	16,210	484	1,274	283	1,346	3,186	216	6,244
Missouri.....	1	41							41				18					18
Montana.....	2	128	166	294	47	45	3	1	95	198	5,300	107	9	1	6			16
Nebraska.....		69	72	141	9				12	139	440	21	2	12				14
Nevada.....		23	90	113	55	10	2		69	44	5,100	140	3	5				8
New Mexico.....	1	106	66	172	6	6	7	10	62	110	4,300	159	9		1	14	24	
New York.....		20	34	44	8	1	1		7	37	200	8						
North Carolina.....		6								6								
North Dakota.....	1	49	81	80	15	24	6	2	60	30	2,203	48	45	14		10		69
Oklahoma.....	19	870	762	1,632	184	110	20	3	316	1,316	24,715	1,198	3,283	200	5,928	269	1,887	11,297
Oregon.....	2	43	12	56	17	6	8	3	34	21	1,100	2	4			1		5
Pennsylvania.....		4								4								
Rhode Island.....		108	47	155	21	68	3	2	84	71	1,900	63	11	9	36	1		61
South Dakota.....		7	23	30	11	11			16	5	200	23	1	1				2
Texas.....		16																
Tennessee.....		76	12	88	26	53	7	2	64	28	1,728	34						6
Washington.....	3	372	226	608	134	39	10	3	186	422	13,200	402	5	1			1	1
Wisconsin.....	1																	
Wyoming.....		3	13	16	5				8	11	400	20						

1 Includes 15 deaths and 16 escaped.

2 Includes fined but not sentenced, penitentiary sentences, and miscellaneous.

3 Includes 76 suspended.

4 Cases prosecuted.

TABLE 23.—Estimated area, stand, and value of timber, sawmills, and quantity and value of timber cut on reservations, fiscal year ended June 30, 1917.

States and reservations.	Allotted lands.			Unallotted lands.		Sawmills on reservations.				Timber cut by—			
	Acreage.	Quantity.	Total stumpage value.	Acreage.	Quantity.	Total stumpage value.	Private.		Government.	Government.		Indiana.	Contractors or permittees.
							Num-ber.	Cost.		Num-ber.	Cost.	Quan-tity.	Value.
		<i>M board feet.</i>							<i>M board feet.</i>			<i>M board feet.</i>	Value.
Grand total.....	1,312,080	6,641,328	\$10,987,166	5,747,151	34,205,584	\$73,997,611	40,920,937		38,400,566	26,363,606	\$32	45,833	\$168,084
Arizona.....	2,560	3,925	4,000	1,265,240	4,309,100	11,857,550			3	11,500	10,103	8,955	\$7,107
Colorado River.....				22,500	22,500	22,500							
Fort Apache.....				680,000	1,000,000	3,575,000			1	6,500	3,375	12	139
Maricopa.....												108	1,293
Navajo.....				430,000	3,000,000	7,500,000			1	2,000	1,060	608	2,000
Pima.....				20,000	40,000	80,000						3,023	31,000
Salt River.....												775	10,000
San Carlos.....				111,000	221,000	603,250			1	3,000	678	4,535	42,700
San Xavier.....	2,560	3,925	4,000										
Truxton Canon.....				31,740	25,600	75,800							
California.....	40,400	1,290,000	1,915,000	108,837	1,092,250	923,800			2	8,500	225	1,650	2,723
Campo.....				50	50	200						52	830
Digger.....				287								30	150
Fort Bidwell.....	4,000	10,000	40,000	1,200	5,000	25,000							
Fort Yuma.....				500	6,000	4,000						200	1,600
Greenville.....	17,000	(¹)	(¹)										
Hoop Valley.....	16,400	1,200,000	1,800,000	83,600	880,000	426,000			1	7,000	25	794	969
Pala.....				200	100	1,000						31	322
Round Valley.....	3,000	50,000	75,000						1	1,500		31	452
Soboba.....				3,000	15,100	12,600						10	10
Tule River.....				20,000	192,000	456,000							
Colorado: Southern Ute.....	1,900	2,000	4,000										
Idaho.....	24,265	56,000	142,500	75,709	375,600	1,216,500	9	\$12,500	1	2,000		471	624
Coeur d'Alene.....	23,265	46,000	115,000	2,639	5,800	14,000							
Fort Hall.....				46,080	100,000	460,000						202	181
Fort Lapwai.....	1,000	10,000	27,500	27,000	270,000	742,500						269	443

* Unknown.

* Estimated.

* 1916 report.

* on this reservation.

* Mostly oordwood, fence posts, etc.,

TABLE 23.—Estimated area, stand, and value of timber, sawmills, and quantity and value of timber cut on reservations, fiscal year ended June 30, 1917—Continued.

States and reservations.	Allotted lands.			Unallotted lands.			Sawmills on reservations.				Timber cut by—					
	Acreage.	Quantity.	Total stumpage value.	Acreage.	Quantity.	Total stumpage value.	Private.		Government.		Government.		Indians.		Contractors or permittees.	
							Num-ber.	Cost.	Num-ber.	Cost.	Quan-tity.	Value.	Quan-tity.	Value.	Quan-tity.	Value.
Iowa: Seo and Fox.	14,677	M board feet.		500	M board feet.	\$1,500					M board feet.	\$24	M board feet.	\$1,280	M board feet.	
Michigan.		40,981	\$81,923		75							155		391	892	
Minnesota.	142,081	32,000	168,000	128,957	121,184	1,137,403	2		3	\$9,800	51	543	1,439	6,080	26,231	\$155,707
Fond du Lac.	6,000	2,000	10,000												9,982	60,349
Grand Portage.	28,000	5,000	25,000	16,000	3,000	10,000							435	1,043	11,229	61,124
Leech Lake.	105,188	8,000	40,000				2	(1)	1	800						
Nett Lake.	1,865	14,000	70,000						1	2,000			779	4,257		
Red Lake.				110,237	116,084	1,102,803				6,000	13	75		1,240		
Shermilion Lake.				320	2,000	24,000					39	468		150		
White Earth.	3,000	3,000	15,000	400	100	600							126	150	5,020	26,224
Montana.	35,863	337,773	813,965	337,070	2,197,000	6,109,200	13	\$62,000	6	12,250	1,804	24,558	1,742	5,982	9,935	27,069
Blackfoot.																
Crow.	2,000	2,000	2,000	44,270	100,000	675,000			1	1,800			400	3,635		135
Flathead.	2,000	2,000	2,000	20,000	21,000	21,000		\$2,000								
Fort Belknap.	2,000	265,000	732,500	200,000	1,600,000	4,450,000	13	50,000	1	2,850	1,304	1,758	1,342	2,157	9,882	27,046
Fort Peck.				25,000	96,000	192,000			2	5,000	400	22,700				
Tongue River.	9,863	39,773	79,466													
				70,000	480,000	720,000			3	2,000	40	60				
Nevada.	1,000	2,000	8,000	2,000	3,000	12,000										
Nevada.																
Reno special agent.	1,000	2,000	8,000	2,000	3,000	12,000										
New Mexico.	254,327	380,000	1,140,000	594,113	1,599,883	4,060,220	1	6,437	5	12,500	702	9,328	5,216	5,240	27,016	81,046
Jicarilla.																
Mescalero.	254,327	380,000	1,140,000	205,253	410,000	30,000										
Pueblo day schools.				260,000	1,500,000	4,500,000	1	6,437	2	2,000	422	3,328	663	625	27,016	81,046
San Juan.				25,840	32,353	73,720										
				12,000	50,000	64,000										
Zuni.				1,500	7,500	22,500			1	5,000	230	5,000	4,533	4,624		

[illegible]

Unknown.

1916 report

Mostly cordwood, fence posts, etc., on this reservation.

Tribal timber.

Estimated.

	12, 678	12, 600	78	1, 800	78	10, 800	9, 376.39	4, 339.75	289, 785.09	8, 226.33	247, 904.43
Colorado.....											
Fort Lewis.....									214.24	308.45	532.69
Southern Ute diminished									20, 700.40	4, 339.75	25, 130.24
Southern Ute.....	12, 678	12, 600	78	1, 800	78	10, 800	9, 376.39	4, 339.75	218, 733.36	3, 573.13	222, 311.49
Idaho.....											
Fort Hall.....	46, 245	33, 940	605	33, 940	607	246	1, 434.17	38, 911.88	895, 028.73	213, 337.87	1, 078, 361.59
Fort Lapwai.....	48, 330	33, 540	580	33, 540	580		461.11	38, 911.88	895, 000.76	213, 126.43	1, 077, 637.19
Lombi.....	428	400	25	100	77	243	993.06		4, 156.33	211.44	4, 368.23
Montana.....									2, 306.13		2, 306.17
Blackfoot.....	464, 780	392, 913	2, 237	307, 886	138, 470	1, 567	905, 708.85	85, 110.64	5, 421, 035.99	621, 631.28	6, 042, 666.97
Crow.....	111, 500	57, 096	164	48, 856	35, 480	104	27, 000	21, 100.61	985, 956.15	22, 261.27	1, 010, 217.43
Flathead.....	153, 708	153, 307	396	74, 020	205	79, 477	47, 802.64	47, 898.31	1, 151, 725.05	410, 234.44	1, 561, 966.49
Fort Belknap.....	129, 438	86, 010	438	86, 010	66, 980	438	799, 464.70	6, 713.17	2, 353, 892.59	104, 356.94	2, 458, 249.53
Fort Peck.....	36, 020	35, 000	1, 020	35, 000	690	400	13, 239.92		229, 481.74	51, 510.04	308, 991.78
Fort Shaw.....	7, 000	7, 800				7, 800	64, 031.84		543, 088.19	14, 348.30	557, 436.99
Tongue River.....	3, 020	3, 400	220		1, 000	2, 480	17.64	1, 500.16	2, 780.31	2, 780.31	5, 760.31
Nevada.....									130, 205.66	17, 810.39	148, 016.05
Carson School.....	62, 201	11, 508	396	4, 068	2, 007	55, 309	36, 455.63		345, 541.88	37, 401.88	382, 943.76
Fallon (Carson Sink allotment).....											
Fort McDermitt.....	3, 740	3, 690	32	825	13	2, 865			6, 548.24		6, 548.24
Koepe River.....	1, 703	1, 138	75	688	35	961			90, 041.41	19, 532.08	109, 574.49
Nevada (Pyramid Lake).....	21, 000	21, 000		600		20, 380	677.79		3, 222.11	407.87	6, 028.98
Walker River.....	6, 125	6, 055	20	1, 865	14	4, 140	27, 801.77		10, 634.86	522.70	11, 157.08
Western Shoshone.....	28, 943	28, 800	143		1, 800	26, 943	2, 232.60		113, 213.02	12, 758.33	125, 971.40
New Mexico.....									46, 338.13	3, 873.88	49, 212.01
Alamillo.....	58, 980	11, 850	370	465	32, 310	740	12, 267.33	8, 613.71	937, 539.14	77, 457.32	1, 015, 016.45
Alamillo.....	2, 210	1, 850	390	465		1, 805			5, 931.78		5, 931.78
Pueblo Benito.....	10, 400	10, 000	40		260	1, 100			15, 462.82		16, 564.82
Pueblo day schools.....	26, 930	26, 930	30			10, 000			341.31		341.31
San Juan.....	10, 320	10, 000	320	5, 000	320	4, 880	2, 854.82		149, 382.51	503.32	149, 885.83
Zuni.....	7, 120	7, 000	120		5, 000	2, 000	9, 310.33	2, 537.20	220, 710.92	50, 402.61	271, 113.53
North Dakota: Standing Rock.....	89, 646	83, 640	1, 006			39, 646	72.18	6, 091.51	545, 708.90	26, 631.39	572, 340.29

Total costs unadjusted for old items prior to 1910 pending inclusion of all irrigation items since 1887.

1. Project abandoned.

2. 1915 report.

3. Decrease due to ditches under Camp McDowell practically all washed out.

4. Reported.

5. Irrigation furnished by Reclamation Service.

6. 1915 report.

TABLE 24.—Area susceptible of irrigation, acreage under projects, and expenditures for irrigation, fiscal year ended June 30, 1917—Continued.

States and superintendences.	Area susceptible of irrigation (acres).				Acreage now under project.			Average cost under project.		Expenditures—			
	Total.	Allotted.	Un-allotted.	School and agency.	Allotted.	Un-allotted.	School and agency.	Average cost under project.		During fiscal year 1917.		To June 30, 1917.	
										Construc- tion.	Mainte- nance.	Construc- tion.	Mainte- nance.
Oregon.....	147,063	115,270	30,000	1,798	87,370	30,000	1,798	28,000		\$39,748.90		\$340,410.71	\$7,041.87
Klamath.....	140,000	103,270	30,000	1,780	82,370	30,000	1,780	30,000		29,832.29		293,994.42	7,041.87
Umatilla.....	2,050	2,000		50	6,000		50			77.99		397.97	
Wagon Springs.....	2,013	2,000		13			13	2,000		388.13		6,078.32	
South Dakota.....	34,765	32,500		2,265	400		260	84,105		3,190.34	\$237.87	69,170.88	687.87
Pierre 1.....	265			265			100	145		2,815.92		32,732.84	
Pine Ridge.....	84,500	32,500		2,000	400		160	33,940		373.55		36,537.79	
Rosebud.....												289.20	
Utah.....	99,635	85,514	10,578	3,543	80,094	578	543	18,420		3,730.36	52,832.36	848,402.04	195,687.11
Goofuite.....	330		300	30		300	30			293.90		878.14	
Shivwits.....	291		273	13		273	13			422.83		1,531.33	
Uintah and Oway.....	99,014	85,514	10,000	3,500	80,094		500	18,420		3,043.63	52,832.36	845,942.55	195,325.70
Washington.....	234,888	234,735		153	162,085		46	72,810		175,411.81	43,832.10	776,513.05	265,694.91
Colville.....	47,003	46,990		43	41,990		46	5,000		5,806.41	3,201.84	46,735.82	2,201.34
Cushman.....	735	775		10	75			710		2.50		1,498.21	
Spokane.....	187,100	187,000		100	120,000			67,100		169,932.90	46,300.76	736,798.08	263,486.57
Yakima.....													
Wyoming: Shoshone.....	143,530	141,690		1,900	73,965		1,307	69,236		40,364.96	29,245.76	301,174.29	144,382.00
													945,534.29

1 1916 report.

TABLE 25.—Miles of ditches and use of irrigated areas on Indian reservations, fiscal year ended June 30, 1917.

States and superintendencies.	Ditches on reservation.		Allotments under ditch June 30, 1917.	Indians benefited by irrigation.	Irrigated lands allotted.	Acreage of irrigated lands cultivated by Indians and whites.						Within service of ditches June 30, 1917.	Remainder to be put under ditch.	
	Main.	Lateral.				Unallotted.	School and agency.	Total.	Value of crops.	By Indians.				Value of crops.
										Number engaged.	Acreage.			
Miles.	Miles.	Number.	Number.	Acre.							Acre.	Acre.		
Grand total.....	1,351	3,037	14,574	33,479	68,524	159,182	73,831	3,674	236,687	\$4,883,585	16,817	172,573	\$2,560,078	590,437
Arizona.....	295	263	4,236	12,239	2,260	36,482	19,345	797	56,624	\$35,379	7,910	83,707	\$20,187	145,185
Camp Verde.....	2	2		100				110	110	\$1,800	20	110	\$1,800	68
Colorado River.....	16	26	450	105	2,260	3,409			3,409	\$73,112	105	1,149	\$73,112	98,680
Fort Apache.....	70	20		800		1,565		65	1,565	\$4,995	800	1,500	\$3,595	150
Havasupai.....	4	8		173		3	103	3	103	\$1,000	60	100	\$3,013	
Kalabab.....		1		(¹)				30	30	\$1,000	(¹)	30	\$1,000	75
Leupp.....		2		(¹)				10	10	\$1,800				60
Moqui.....				(¹)				10	10	(¹)	(¹)	10	(¹)	25
Navajo.....	60			2,800		2,000		65	2,065	\$7,750	2,800	2,000	\$67,500	10,185
Pima.....	56	61	2,733	4,397		12,210	271	38,731	38,731	\$33,800	3,387	38,460	\$32,740	5,045
Salt River.....	22	26	804	1,075		5,673	1,100	19	6,062	\$24,305	440	6,073	\$23,540	6,700
San Carlos.....	48	50		1,749		1,380	24	1,404	1,404	\$11,657	283	1,380	\$11,517	16,751
San Xavier.....	6	12	249	2,260		1,260		200	1,260	\$4,200	186	1,260	\$4,200	17,306
Trusten Canon.....	1			40		45			45	\$6,000	40	45	\$6,000	110
Western Navajo.....	73	75		1,400		1,000	200	200	1,200	\$17,940	400	1,000	\$11,360	12,240
California.....														
Bishop.....	1		180	500	200	1,200		263	9,467	\$31,068	970	6,200	\$172,721	14,460
Campo.....	11	14		94		237		16	1,216	\$14,200	200	1,200	\$13,900	13,102
Dyer.....	2		19	115		20		7	244	\$13,685	26	237	\$13,685	26
Fort Bidwell.....	(¹)	(¹)	(¹)	30		100		60	160	\$1,000	30	100	\$1,000	5,000
Fort Yuma.....	10	20	802	833	3,000	4,318		160	4,478	\$22,702	170	1,313	\$22,702	3,415
Hopew Valley.....	(¹)	(¹)	(¹)	(¹)		200		14	374	\$2,259	85	860	\$2,259	2,415
Mali.....	16	15	166	576		1,186		3	1,186	\$14,531	153	1,186	\$14,531	11,462
Pala.....	20	12		146		566		3	1,311	\$35,040	194	1,309	\$37,944	1,914
Roboba.....	5	2		146		315		2	1,317	\$7,771	59	310	\$6,589	459
Tule River.....	8	1		180		160		1	161	\$3,000	30	160	\$2,960	161

¹ Data incomplete.
² Does not include Pierre, Standing Rock, and Fort Lapwai, which show an irrigable area of 90,380 acres, preceding table.
³ Does not include crop value of leased land.
⁴ Dry ditches.
⁵ Estimated.

TABLE 25.—Miles of ditches and use of irrigated areas on Indian reservations, fiscal year ended June 30, 1917—Continued.

States and superintendencies.	Ditches on reservation.		Allotments under ditch June 30, 1917.	Indians benefited by irrigation.	Irrigated lands leased.	Acreage of irrigated lands cultivated by Indians and whites.								Within service of ditches June 30, 1917.	Remainder to be put under ditch.
	Main.	Lateral.				Unal- lotted.	School and agency.	Total.	Value of crops.	By Indians.		Value of crops.			
										Num- ber en- gaged.	Average.				
Colorado: Southern Ute.....	Miles. 28	15	96	Number. 260	Acre.	1,800	78	1,878	112,900	80	1,800	112,900	Acre. 10,800	10,800	
Idaho: Fort Hall.....	30	84	1,541	1,555	2,424	11,175	340	11,515	245,646	311	7,905	150,207	26,277	19,548	
Montana.....	231	1,000	3,532	5,300	8,050	22,587	941	37,318	264,164	1,677	32,675	287,035	199,980	264,800	
Blackfoot.....	85	269	1,150	1,180	350	1,976	...	1,976	24,553	1,150	1,976	24,553	28,240	88,200	
Crow.....	99	164	1,772	1,680	7,000	19,000	...	19,151	285,269	280	19,000	195,000	71,640	82,032	
Flathead.....	11	561	610	1,500	7,700	1,611	161	1,772	68,598	27	9,998	78,228	19,138	17,200	
Fort Belknap.....	28	58	...	1,000	...	10,220	600	10,820	82,273	270	10,220	77,000	18,800	17,200	
Fort Peck.....	...	...	...	...	...	...	...	...	...	...	...	...	...	7,000
Tongue River.....	8	...	...	50	...	...	190	1,000	10,400	...	510	4,200	1,000	2,500
Nevada.....	37	71	721	1,338	20	3,073	91	3,445	105,041	531	8,240	102,783	30,632	31,590	
Fallon.....	4	21	869	315	...	825	27	852	10,110	64	825	9,500	3,740	...	
Fort McDermitt.....	7	...	110	100	763	688	16	703	3,300	53	743	3,200	703	1,001	
Mojave River.....	6	...	117	120	...	350	...	350	22,260	43	360	22,260	600	...	
Nevada.....	8	23	...	200	...	620	30	650	15,224	200	620	14,090	21,080	...	
Walker River.....	12	12	125	500	20	1,215	115	1,244	218,193	89	11,215	27,740	3,625	...	
Western Shoshone.....	...	...	...	108	...	4,587	...	4,587	24,964	108	4,587	24,964	26,948	...
New Mexico.....	227	252	50	5,997	...	32,260	700	32,960	529,793	4,154	32,260	508,067	38,475	18,505	
Mescalero.....	11	2	50	160	...	...	240	240	3,647	(¹)	(¹)	(¹)	805	1,405
Pueblo Bonito.....	4	...	...	20	...	200	20	220	16,500	20	200	16,000	800	10,000
Pueblo day schools.....	197	200	...	3,024	...	22,060	...	22,060	302,917	2,324	22,060	302,917	26,980	...	
San Juan.....	15	20	...	900	...	5,000	320	5,320	113,177	900	5,000	86,500	5,320	6,000	
Zuni.....	10	30	...	1,908	...	5,000	120	5,120	98,523	900	5,000	86,500	6,120	2,000	
Oregon.....	28	31	200	188	900	3,400	300	3,700	64,300	37	3,000	45,000	12,200	124,968	
Klamath.....	22	29	200	148	700	3,200	300	3,500	52,500	37	3,000	45,000	12,000	124,000	
Umatilla.....	6	2	(¹)	40	(¹)	...	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	12,000	4,800	
Warm Springs.....	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	2,013	

[illegible]

1 1916 report.
2 Does not include crop value of leased land.
3 As reported.
4 Not reported.
5 No living water on land.
6 Estimated.

1916 report.

² Does not include crop value of leased land.

As reported:

Not reported.

No living water on land

Estimated.

TABLE 26.—*Allotments approved by the department during the fiscal year ended June 30, 1917, and made in the field.*

States and tribes or reservations.	Approved by department.		Made in the field.	
	Number.	Acreage.	Number.	Acreage.
Total.....	1,134	175,456	4,668	297,108
Arizona.....	72	720	3,773	186,280
Colorado River.....	72	720	2	20
Pima (Gila River).....			3,771	186,300
California (public domain).....	4	310		
Colorado: Absentee Wyandot (public domain).....	9	720		
Michigan.....	2	120		
L'Anse and Vieux Desert.....	1	40		
Ontonagon.....	1	80		
Minnesota.....	11	861		
Fond du Lac.....	8	621		
Leech Lake.....	3	240		
Montana.....	133	17,192	492	125,906
Absentee Wyandot (public domain).....	1	80		
Crow.....	13	2,242		
Fort Peck.....			456	121,836
Turtle Mountain.....	119	14,870	36	4,160
Nebraska: Winnebago.....	1	41		
Nevada: Walker River.....	6	115		
North Dakota.....	4	798		
Standing Rock.....	2	478		
Turtle Mountain (public domain).....	2	320		
Oklahoma: Potawatomi.....	1	120		
Oregon.....	10	1,427	31	4,656
Klamath.....	6	905	31	4,656
Umatilla.....	2	299		
Warm Springs.....	1	160		
Public domain.....	1	162		
South Dakota.....	874	152,893	892	70,071
Cheyenne River.....	246	39,850	193	20,908
Lower Brule.....	25	4,136	4	640
Pine Ridge.....	192	40,658	196	28,425
Rosebud.....	411	67,749		
Washington: Yakima.....	1	160		
Wisconsin.....	6	479		
Absentee Wyandot (public domain).....	1	80		
Lac Courte Oreille.....	5	399		

TABLE 27.—Sales of Indians' allotted lands during fiscal year ended June 30, 1917.

States and superintendencies.	Noncompetent sales. ¹			Inherited-land sales. ²		
	Number of tracts.	Acreage.	Proceeds.	Number of tracts.	Acreage.	Proceeds.
Grand total.....	3,905	440,537.92	\$7,176,570.14	9,000	1,110,306.14	\$17,426,504.34
Total, 1917.....	568	69,840.00	1,040,202.00	655	75,892.00	1,546,966.00
1916.....	563	84,968.62	989,611.24	634	85,762.25	694,241.48
1915.....	422	84,429.09	584,724.56	393	68,245.45	715,583.53
1914.....	529	45,526.31	779,526.14	418	45,241.99	772,369.16
1913.....	308	20,778.80	407,318.56	109	10,797.94	285,097.72
1912.....	324	34,391.11	595,890.75	392	43,652.27	899,285.02
1911.....	494	56,197.98	978,598.27	698	79,665.66	1,503,960.38
1910.....	520	83,655.80	1,245,636.96	873	129,359.61	1,966,315.92
1909.....	235	34,060.33	442,762.85	753	102,708.00	1,321,269.79
1908.....	92	7,990.88	159,318.81	768	91,302.57	1,302,536.94
1907.....	.....	.....	.....	820	100,359.25	1,248,798.34
1906.....	.....	.....	.....	643	64,447.67	961,430.87
1905.....	.....	.....	.....	978	90,214.97	1,368,181.53
1904.....	.....	.....	.....	1,236	122,222.52	2,067,464.50
1903.....	.....	.....	.....	(³)	44,498.99	787,173.25
California: Fort Bidwell.....	1	80	320	1	2	108
Colorado: Southern Uta.....	6	490	2,055	12	1,475	3,087
Idaho.....	4	241	8,235	19	1,391	45,376
Coeur d'Alene Fort Lapwai.....	4	241	8,235	4	637	16,645
Kansas.....	14	498	26,198	10	550	22,423
Kickapoo.....	4	122	10,768	5	310	11,110
Potawatomi.....	10	376	18,426	5	240	11,823
Michigan: Mackinac.....	1	40	801	.....	.....	.....
Minnesota.....	19	941	15,244	21	1,188	14,566
Fond du Lac.....	1	6	120	2	81	2,475
Leech Lake.....	13	496	6,007	18	1,037	10,071
White Earth.....	5	440	9,117	1	80	2,020
Montana.....	58	10,054	95,660	114	15,537	200,040
Crow.....	22	2,121	28,128	81	11,002	115,510
Flathead.....	15	941	28,726	26	2,277	68,188
Fort Peck.....	21	5,982	43,807	5	1,668	16,877
Nebraska.....	49	2,408	181,586	90	6,304	427,664
Omaha.....	18	1,078	113,077	44	2,796	246,421
Santee.....	19	909	38,409	23	2,188	88,175
Winnebago.....	12	416	30,109	23	1,320	97,968
North Dakota.....	84	9,736	111,382	42	6,148	54,063
Fort Berthold.....	16	1,719	26,536	4	480	8,490
Fort Totten.....	26	1,924	26,994	19	1,757	27,596
Standing Rock.....	16	2,809	17,508	7	1,598	5,226
Turtle Mountain.....	26	2,684	30,349	12	2,318	12,742
Oklahoma.....	183	24,589	298,790	169	21,846	418,969
Cantonment.....	17	1,478	25,530	21	3,907	67,589
Cheyenne and Arapaho.....	34	6,421	60,576	63	8,632	167,372
Kiowa.....	23	1,869	45,638	37	5,312	119,708
Osage.....	84	12,336	109,624	8	1,068	9,906
Pawnee.....	11	845	16,078	13	1,277	24,000
Ponca.....	1	40	827	1	110	3,200
See and Fox.....	1	80	1,600	1	2	128
Red Moon.....	.....	.....	.....	1	160	2,526
Sage.....	10	1,200	25,562	4	520	11,765
Savaca.....	1	240	4,812	9	698	11,725
Shawnee.....	1	80	4,613	1	160	1,260

¹ Under act of Mar. 1, 1907 (34 Stat. L., 1015-1018), modified by acts of May 29, 1906 (35 Stat. L., 444), June 25, 1910 (36 Stat. L., 855-856), and Feb. 14, 1913 (37 Stat. L., 678-679).

² Under act of May 27, 1903 (32 Stat. L., 245-276), modified by acts of May 8, 1906 (34 Stat. L., 182), May 29, 1906 (35 Stat. L., 444), June 25, 1910 (36 Stat. L., 855-856), and Feb. 14, 1913 (37 Stat. L., 678-679).

³ Includes sales of lands of Kaw, Osage, and Five Civilized Tribes.

⁴ Includes sales of Five Civilized Tribes.

⁵ Unknown.

TABLE 27.—*Sales of Indians' allotted lands during fiscal year ended June 30, 1917.—Con.*

States and superintendencies.	Noncompetent sales.			Inherited-land sales.		
	Number of tracts.	Acreage.	Proceeds.	Number of tracts.	Acreage.	Proceeds.
Oregon.....	10	1,400	\$14,164	11	1,155	\$17,120
Klamath.....				1	160	960
Roseburg.....	9	1,360	12,143	5	720	2,116
Siletz.....				1	40	1,200
Umatilla.....	1	40	2,021	4	235	12,854
South Dakota.....	108	15,827	282,005	103	16,409	248,201
Cheyenne River.....	3	955	6,610	3	1,117	6,146
Crow Creek.....	2	185	421	16	2,799	19,965
Pine Ridge.....	16	3,283	15,025	8	2,458	10,927
Rosebud.....	48	9,075	119,530	29	7,086	95,175
Sisseton.....	14	800	21,218	11	918	30,280
Yankton.....	26	1,579	68,601	26	2,081	85,728
Utah: Uintah and Ouray.....	12	754	13,764	9	557	10,240
Washington.....	8	351	15,187	14	907	36,386
Colville.....	1	80	800	2	120	3,840
Cushman.....	2	41	2,250	1	12	811
Taholah.....				1	80	4,000
Tulisp.....				1	2	142
Yakima.....	5	250	12,137	9	698	27,568
Wisconsin.....	3	98	1,519	21	780	23,945
La Pointe.....	1	89	899			
Ononda.....	1	8	320	19	700	23,196
Red Cliff.....	1	1	300			
Tomah.....				2	80	750
Wyoming: Shoshone.....	28	2,357	28,288	19	1,643	19,209

TABLE 28.—*Patents in fee issued under act of May 8, 1906 (34 Stat. L., 182), as modified by acts of May 29, 1908 (35 Stat. L., 444), and June 25, 1910 (36 Stat. L., 855.)*

States and superintendencies.	Patents in fee issued from May 8, 1906, to June 30, 1917.				Applications for patents in fee during fiscal year ended June 30, 1917.			
	Original allotments.		Inherited land.		Re- ceived.	Denied.	Approved.	
	Num- ber.	Acreage.	Num- ber.	Acreage.			Num- ber.	Acreage.
Total.....	13,902	1,470,285.06	2,527	277,898.86	2,500	297	2,203	266,544.00
Arizona: San Xavier.....	1	40.00	1	12.40				
California.....	22	1,386.00	1	10.00				
Bishop.....	2	280.00						
Greenville.....	1	80.00						
Hoopa Valley.....	16	963.00						
Round Valley.....	3	65.00	1	10.00				
Idaho.....	224	30,968.86	58	3,732.18	78	3	75	11,580.00
Courd'Alene.....	122	18,980.97	5	787.65	41	2	39	6,280.00
Fort Hall.....	54	8,775.94			27		27	4,558.00
Fort Lapwai.....	48	3,261.95	53	2,944.53	10	1	9	738.00
Kansas.....	165	11,193.63	87	7,416.60	90	13	77	5,164.00
Kickapoo.....	96	5,816.14	50	4,332.30	67	2	65	4,403.00
Potawatomi.....	69	5,377.49	37	3,084.30	23	11	12	761.00

TABLE 28.—*Patents in fee issued under act of May 8, 1906 (34 Stat. L., 188), as modified by acts of May 29, 1908 (35 Stat. L., 444), and June 25, 1910 (36 Stat. L., 855)—Continued.*

States and superintendencies.	Patents in fee issued from May 8, 1906, to June 30, 1917.				Applications for patents in fee dur- ing fiscal year ended June 30, 1917.			
	Original allotments.		Inherited land.		Re- ceived.	Denied.	Approved.	
	Num- ber.	Acreage.	Num- ber.	Acreage.			Num- ber.	Acreage.
Michigan: Mackinac and Mount Pleasant.....	17	1,283.28	4	202.24	1	1	.....	.....
Minnesota.....	3,682	294,769.23	20	1,304.50	40	12	23	2,087.00
Fond du Lac.....	20	1,508.50	7	360.00	4	1	3	231.00
Grand Portage.....	23	1,929.32	3	240.00	13	5	8	643.00
Leech Lake.....	54	4,416.52	6	398.00	20	6	14	973.00
Nett Lake.....	12	1,074.89	4	305.50	3	.....	3	240.00
White Earth.....	3,573	285,840.00	.....	.....	.....	.....	.....	.....
Montana.....	674	104,226.60	294	40,699.51	195	51	144	30,768.00
Blackfeet.....	4	920.97	.....	.....	2	2	.....	.....
Crow.....	75	14,812.47	209	25,526.20	34	4	30	5,877.00
Flathead.....	403	35,814.61	49	3,983.31	45	4	41	3,462.00
Fort Peck.....	193	52,678.55	36	11,160.00	114	41	73	21,429.00
Nebraska.....	1,066	71,720.02	512	46,931.04	102	30	72	4,995.00
Omaha.....	572	36,996.94	191	24,811.00	16	2	14	720.00
Ponca.....	26	3,355.06	.....	.....	.....	.....	.....	.....
Santee.....	280	21,229.80	268	18,708.00	28	2	26	2,458.00
Winnebago.....	178	10,128.22	53	3,412.04	58	26	32	1,817.00
Nevada: Carson.....	3	360.00	.....	.....	.....	.....	.....	.....
North Dakota.....	1,201	216,919.00	180	29,516.47	234	32	202	40,883.00
Fort Berthold.....	33	7,088.90	3	324.00	16	.....	16	5,186.00
Fort Totten.....	83	7,632.80	39	3,150.67	33	4	29	2,900.00
Standing Rock.....	296	93,938.85	52	10,142.21	55	.....	55	15,577.00
Turtle Mountain.....	789	106,258.48	86	15,899.59	130	28	102	14,160.00
Oklahoma.....	2,549	220,874.28	404	42,027.16	830	50	780	64,108.00
Cantonment.....	53	7,415.88	28	4,252.66	8	8	.....	.....
Cheyenne and Ara- paho.....	339	33,797.96	17	2,908.49	195	8	187	14,683.00
Kiowa.....	155	19,775.14	23	3,677.86	3	.....	3	400.00
Otoe.....	95	10,915.79	17	2,213.74	3	2	1	80.00
Pawnee.....	74	8,356.31	34	2,918.58	29	11	18	1,615.00
Ponca.....	106	9,121.01	28	3,343.36	39	7	32	4,016.00
Sac and Fox.....	196	21,792.86	31	3,967.07	90	6	84	10,108.00
Seger.....	43	4,357.77	2	560.00	9	2	7	640.00
Seneca.....	857	52,139.08	189	12,429.46	308	3	305	17,409.00
Shawnee.....	631	53,202.46	35	5,670.94	145	3	143	15,151.00
Oregon.....	345	26,660.75	87	8,101.62	55	9	47	4,596.00
Klamath.....	39	5,912.27	5	802.72	14	6	8	1,280.00
Roseburg.....	15	2,147.09	10	1,511.29	.....	.....	.....	.....
Silet.....	21	1,438.78	16	1,480.72	9	.....	9	878.00
Umatilla.....	265	16,512.61	51	3,566.89	31	3	28	2,118.00
Warm Springs.....	5	680.00	5	790.00	2	.....	2	330.00
South Dakota.....	2,376	407,292.32	342	61,635.04	663	86	577	88,060.00
Cheyenne River.....	279	80,807.84	27	4,791.86	105	1	104	31,568.00
Crow Creek.....	90	14,687.26	57	9,242.47	40	2	38	6,629.00
Lower Brule.....	95	24,399.15	6	1,050.00	25	.....	25	5,452.00
Pine Ridge.....	553	105,446.52	158	31,922.29	102	66	36	6,776.00
Rosebud.....	351	78,725.25	69	12,193.54	17	7	10	2,096.00
Siouxton.....	203	20,821.72	9	884.14	70	3	67	8,113.00
Yankton.....	806	82,504.58	18	1,550.74	303	7	296	27,426.00
Utah: Uintah and Ouray	4	240.00	.....	.....	.....	.....	.....	.....

TABLE 28.—*Patents in fee issued under act of May 8, 1906 (34 Stat. L., 182), as modified by acts of May 29, 1908 (35 Stat. L., 444), and June 25, 1910 (36 Stat. L., 855)—Continued.*

States and superintendence.	Patents in fee issued from May 8, 1906, to June 30, 1917.				Applications for patents in fee during fiscal year ended June 30, 1917.			
	Original allotments.		Inherited land.		Re- ceived.	Denied.	Approved.	
	Num- ber.	Acreage.	Num- ber.	Acreage.			Num- ber.	Acreage.
Washington.....	260	20,539.09	271	21,428.51	55	9	46	3,227.00
Colville.....	68	5,524.30	2	190.00	17	2	15	1,253.00
Cushman.....	6	570.00	3	153.90	.....	.....	.....	.....
Spokane.....	46	4,066.50	.....	.....	15	4	11	894.00
Tabolah.....	.....	.....	1	80.00	.....	.....	.....	.....
Tulalip.....	14	1,814.36	1	163.85	3	1	2	124.00
Yakima.....	126	5,552.93	264	20,570.76	20	2	18	1,008.00
Wisconsin.....	1,249	53,572.04	230	12,164.85	119	1	118	6,111.00
Hayward.....	16	1,161.04	.....	.....	12	.....	12	768.00
Lac du Flambeau.....	12	874.14	7	528.10	4	1	3	243.00
La Pointe.....	100	7,881.53	18	1,680.54	29	.....	29	2,280.00
Oneida.....	1,083	41,566.03	204	9,596.21	55	.....	55	1,667.00
Red Cliff.....	38	2,359.30	1	80.00	19	.....	19	1,063.00
Wyoming: Shoshone.....	74	7,907.98	36	2,241.65	37	.....	37	4,000.00

SUMMARY OF PATENTS IN FEE ISSUED UNDER ACT OF MAY 8, 1906.

	Applica- tions ap- proved.	Acreage approved.
1907.....	889	92,132.50
1908.....	1,967	153,961.78
1909.....	1,166	153,331.79
1910.....	955	99,339.10
1911.....	1,011	115,675.37
1912.....	344	45,529.49
1913.....	630	67,477.49
1914.....	1,148	152,406.44
1915.....	940	124,114.86
1916.....	934	130,980.43
1917.....	2,203	265,440.00
Total.....	12,097	1,380,318.26

TABLE 29.—*Removals of restrictions.*

Fiscal year.	Quapaw (Seneca), Okla. ¹		Five Civilized Tribes. ²	
	Number.	Acreage.	Number.	Acreage.
Aggregate.....	520	26,726.40	9,923	659,737.74
1917.....	20	916.88	1,438	155,403.17
1918.....	30	1,401.45	697	42,108.60
1915.....	25	1,085.28	786	50,077.33
1914.....	72	3,889.35	1,106	81,034.72
1913.....	37	1,930.00	956	60,532.64
1912.....	53	3,213.28	652	45,075.51
1911.....	68	4,104.91	953	84,579.34
1910.....	215	10,170.25	1,470	88,070.34
1909.....			1,865	52,761.09

¹ Act of Mar. 3, 1909 (35 Stat. L., 751).

² Act of May 27, 1908 (35 Stat. L., 312); by departmental approval.

NOTE.—Act of Congress dated May 27, 1908 (35 Stat. L., 312), removing restrictions from all lands of intermarried whites, freedmen, and Indians of less than half Indian blood, and from all lands except homesteads of Indians having half or more than half and less than three-quarters Indian blood, operated to remove restrictions from the lands of 70,000 Indians, who held 8,000,000 acres.

TABLE 30.—*Certificates of competency issued during fiscal year ended June 30, 1917, under act of June 25, 1910 (36 Stat. L., 855), to Indians holding fee patents with restrictions as to alienation.*

Indians to whom issued.	Number.	Acreage.
Aggregate.....	343	30,376
Total, 1917.....	65	4,440
1916.....	90	9,042
1915.....	65	5,616
1914.....	33	3,951
1913.....	23	1,600
1912.....	25	1,917
1911.....	42	3,810
Fort Hall, Idaho.....	1	180
Seneca, Okla.....	15	750
Tulalip, Wash.....	3	100
Fond du Lac, Minn.....	4	270
Hayward, Wis.....	11	600
Lac du Flambeau, Wis.....	4	320
La Pointe, Wis.....	27	2,180

TABLE 31.—*Certificates of competency issued to Kaw and Osage Indians.*

Fiscal year.	Kaw. ¹		Osage. ²	
	Number.	Acreage.	Number.	Acreage.
Aggregate.....	59	17,904	482	.....
1917.....	7	1,120	21	10,395
1916.....			4	1,960
1915.....	5	800	12	5,880
1914.....	12	1,904	4	1,960
1913.....	1	400	23	10,800
1912.....	1	480	22	10,800
1911.....			84	41,160
1910.....			293	143,570
1909.....	20	8,000	19	9,310
1908.....	6	2,400		
1907.....	6	2,400		
1906.....	1	400		

¹ Act July 1, 1902 (32 Stat. L., 636).

² Act June 28, 1906 (34 Stat. L., 539).

TABLE 32.—*Lands leased for mining purposes and production of minerals and royalty therefor, fiscal year ended June 30, 1917.*

States and superintendencies.	Kind of lease.	1899 to 1916 (both included).				Fiscal year ended June 30, 1917.					
		Total pro- duction.	Acreage.	Revenue.		Total pro- duction.	Acreage.	Revenue.			
				Advance royalty and annual rental.	Royalty on pro- duction.	Bonus.			Advance royalty and annual rental.	Royalty on pro- duction.	Bonus.
Total.....			2,811,154	\$2,320,762	\$23,899,556	\$3,117,621		2,191,011	\$894,069	\$7,310,337	\$1,878,682
	Miscellaneous.		80	1.24							
(California: Greenville.....											
New York: New York Agency.....	Oil (barrels) ¹ Gas (cubic feet) ²	10,022 320,426,109	1,900		17,425 6,533		743		2,675	2,082	
Oklahoma.....			2,738,571	2,289,194	23,735,087	3,117,110		2,157,489	875,175	7,308,209	1,877,464
Cantonment.....	Miscellaneous.		490		1.24						
Cheyenne and Arapaho.....	Oil and gas.		9,989	6,653		1,038		20,228	3,034		
Kiowa.....	do.							36,267	12,261		27,716
Osage.....	Oil (barrels)	10,261,661		32,543	6,235,343	2,005,159	1,943,919	237,210	116,145	2,614,176	1,058,790
	Gas.....		900,000		169,549		(¹)	92,046	803,640		
Otoe.....	Oil and gas.		49,907	14,112		117,396		60,000			21,185
Pawnee.....	do.		64,000	57,083	1,944			32,527	28,100	31,538	
Ponca.....	Oil (barrels)	274,758		6,842	103,170	37,749	146,116	63,600	783	28,595	11,000
	Gas.....		1,040	130	2,141		(¹)	1,040	80		
Sac and Fox.....	Oil (barrels)		35,305	74,335		20,713		19,640	26,899		2,260
Shawnee.....	do.		1,968	290		35,077		6,626			6,583
Five Civilized Tribes (re- stricted lands).	do.	207,781,132	1,450,404	1,835,317	33,551,596	3,085,968	21,408,173	998,471	582,765	3,553,599	140,000
	Gas.....		(¹)	(¹)	321,017		(¹)	(¹)	(¹)	64,715	
	Coal (tons)	605,968	7,757	694	46,444		232,409	(¹)	449	17,213	
	Miscellaneous.....	101,745		101,334	2,809		105			1,223	
	Coal (tons) ¹	938,726,775	106,296	144,922	3,335,149		3,846,993	109,407	47,657	190,631	
	Asphalt (tons) ²	54,383	9,800	11,000	25,949		2,532	4,840	1,500		
Washington: Spokane.....	Miscellaneous.							1,380	570		
Wyoming.....			70,008	31,234	30,561	511		32,142	15,639	96	1,168
Shoshone.....	Oil and gas.										
	Coal (tons).	17,515	9,000	7,650	207	511	6,449	7,869	5,013		1,168
	Miscellaneous.....	1,990	1,552	1,815			1,254	89	28	80	
	Oil (barrels) ¹	180	9,307	3,283	8		(¹)	24,069	10,545		
	Coal (tons) ²	256,687	50,734	18,836	30,346		22,163	40		16	

¹ From 1913 to 1914.
² Unallotted; all other allotted.
³ Royalty production; from 1901 to 1916.
⁴ Not reported.
⁵ From 1912 to 1916.
⁶ From 1913 to 1916.
⁷ From 1911 to 1916.
⁸ Partially reported.
⁹ From 1907 to 1916.
¹⁰ Lime, barrels.

TABLE 33.—Buildings, etc., completed during the fiscal year ended June 30, 1917.

States and superintendencies.	Improvement.	Cost.
Total		\$306,231.08
Arizona:		
Colorado River.....	Repairing employees' quarters.....	1,184.48
Leupp.....	Two stone cottages.....	4,375.44
Do.....	Additions to stone dormitory.....	18,342.00
Navajo (Tohatchi).....	Frame commissary building.....	1,990.00
Pima.....	School, No. 90 (adobe).....	2,938.00
San Xavier.....	Day school, Indian Oasis.....	6,985.33
Do.....	Day school, Quojote.....	8,875.84
Do.....	Day school, Vamori.....	8,811.88
Western Navajo.....	Employees' stone mess, stone gas house, two stone cottages, addition to stone boilerhouse, addition to school buildings.....	22,002.00
California:		
Campo.....	Two-room building for kitchen and dining room.....	510.00
Hoopa Valley.....	Hospital, No. 48.....	14,061.51
Pais.....	Sewer system.....	4,000.00
Round Valley.....	Schoolhouse, No. 63 (Yokla, day).....	3,874.00
Minnesota:		
Fond du Lac.....	Log house for John Ojibway.....	600.00
Red Lake.....	Police quarters.....	812.54
Do.....	Steam boiler.....	800.00
Montana:		
Crow.....	Heating plant.....	4,067.82
Do.....	Brick schoolhouse.....	17,400.00
Crow (Fryor).....	Laundry and employees' quarters.....	2,787.00
Crow.....	Frame office building.....	5,800.00
Fort Belknap.....	Brick laundry and heating plant.....	18,947.00
Do.....	Sewer system.....	878.00
Do.....	Material for school building and cottage.....	915.85
Fort Peck.....	Steel water standpipe.....	2,065.00
Tongue River.....	Two spiral fire escapes.....	910.00
Nebraska:		
Santee.....	Repairs to old bridge and one new span (Niobrara).....	5,868.80
Do.....	Office building.....	747.00
Nevada: Moapa River.....	One frame school building.....	1,777.00
New Mexico:		
Albuquerque.....	Heating system for sewing room and laundry.....	1,025.00
Do.....	Sewing room and laundry.....	5,362.58
Do.....	Two steel tanks.....	2,225.00
Jicarilla.....	Frame hospital, No. 48.....	11,935.59
Pueblo Bonito.....	Water tank and tower.....	5,350.00
Do.....	Brick industrial building, No. 12.....	7,350.00
Do.....	Frame schoolhouse, quarters, barn, and three outhouses.....	5,600.00
Do.....	Steam heat for dormitory.....	1,247.00
Do.....	Refrigerating plant.....	1,199.00
North Carolina: Cherokee		
Oklahoma:		
Chillico.....	Fire escapes.....	708.00
Bloomfield.....	Remodeling main building and two dormitories.....	8,514.90
Do.....	Water mains.....	1,700.00
Cheyenne Arapaho.....	Frame sanatorium, No. 41.....	15,858.39
Eucsee School.....	Superintendent's cottage.....	2,600.00
Kiowa.....	Two frame quarters.....	6,499.00
Do.....	Repairs to hospital roof.....	558.30
Seger.....	Office building.....	2,980.59
Shawnee.....	Frame schoolhouse.....	5,184.90
Do.....	Heating and plumbing supplies.....	710.06
Oregon: Klamath.....	Bridge, 60-foot span, Williamson River.....	525.00
Pennsylvania: Carlisle.....	Stokers.....	5,079.00
South Dakota:		
Canton Asylum.....	Dairy barn.....	5,560.00
Cheyenne River.....	Cottage, stable, and coal house.....	2,745.00
Crow Creek.....	Two frame cottages.....	1,450.00
Do.....	Frame hospital, No. 48.....	13,239.45
Do.....	Erecting three bridges.....	2,743.00
Do.....	Two frame cottages.....	2,612.47
Pierre.....	Steel water tank.....	1,580.00
Rapid City.....	Extension to sewer system.....	996.70
Rosebud.....	Frame dairy barn, No. 51.....	2,652.00
Do.....	Frame school building and outhouse.....	1,535.00
Rosebud (Okreeth, day).....	Frame cottage and barn.....	1,894.00
Rosebud.....	Exhibit building, stock shed, and two outhouses.....	1,696.00
Do.....	Frame cottage.....	3,532.10
Springfield.....	Electric lighting plant.....	1,190.00
Yankton.....	Boiler, etc.....	718.00
Do.....	Cement walks.....	848.88
Washington:		
Cushman.....	Constructing concrete basement.....	560.00
Do.....	School building (Jamestown, day).....	708.00
Do.....	Coal house.....	754.71
Tulalip.....	Employees' cottage, No. 86.....	3,486.00
Wisconsin:		
Hayward.....	Office and warehouse.....	1,083.97
Tomah.....	Electric generator and switchboard.....	2,372.00

TABLE 34.—*Buildings, etc., under construction or contract during fiscal year ended June 30, 1917.*

State and superintendencies.	Improvement.	Cost.
Total		\$233,825.46
Arizona:		
Fort Apache.....	Frame dormitory, completing.....	1,000.00
Leupp (Winslow).....	Bridge.....	15,000.00
Pima.....	Three cottages.....	1,974.00
Do.....	Employees' quarters.....	2,504.22
Do.....	Superintendent's cottage.....	3,105.78
Do.....	Warehouse.....	6,228.97
Do.....	Office.....	3,159.65
Phoenix.....	Infirmary.....	9,358.00
Rice Station.....	Concrete reservoir.....	1,900.00
Salt River.....	Farmer's cottage, barn, and tank.....	3,170.00
San Carlos.....	Piping, water main.....	1,405.20
California:		
Campos.....	Two three-room frame buildings.....	650.00
Fort Bidwell.....	Lavatory annex, girl's building.....	2,084.50
Greenville.....	Concreting bottom of reservoir.....	1,115.00
Do.....	Addition to hospital.....	1,352.54
Do.....	Heating plant.....	3,750.00
Do.....	Addition to reservoir.....	1,251.00
Round Valley.....	Remodeling mess hall.....	322.50
Do.....	Schoolhouse at Nokomis day school.....	1,000.00
Idaho:		
Fort Lapwai Sanatorium.....	Repairs to cottages and office.....	1,726.81
Do.....	Repairs to buildings.....	2,296.81
Kansas Haskell.....	Stone and concrete work for barn.....	3,907.00
Minnesota:		
Pipestone.....	Septic tank and sewer.....	5,500.00
Do.....	Digging big ditch.....	2,000.00
Do.....	Building roadway.....	1,000.00
White Earth.....	Building roadway.....	4,666.00
Do.....	Addition to Twin Lake school.....	1,307.00
Do.....	Dairy barn.....	1,686.54
Montana:		
Fort Belknap.....	School building (lodge pole).....	1,223.50
Tongue River.....	Dairy barn.....	1,999.00
Fort Belknap.....	One cottage (lodge pole).....	1,022.35
Nebraska: Genoa.....	Boiler, water and sewer.....	3,580.00
New Mexico:		
Mescalero.....	Cottage No. 94.....	2,096.29
Navajo (Tohatchi).....	Schoolhouse No. 81.....	30,000.00
Navajo School.....	Completing boys' dormitory.....	690.00
Pueblo Bonito.....	Schoolhouse and mess hall.....	53,780.00
San Carlos.....	Repairs to San Carlos Bridge.....	1,173.60
San Juan.....	Ice plant.....	1,377.00
Do.....	Completing hospital.....	3,519.76
Do.....	Material for two cottages.....	2,400.00
North Dakota: Turtle Mountain.....	Cisterns for schools Nos. 1, 2, and 5.....	1,200.00
Oklahoma:		
Bloomfield.....	Two-inch gas pipe to Bloomfield Seminary.....	1,990.00
Euchec.....	Dairy barn.....	2,000.00
Eufaula.....	Employees' quarters No. 97.....	6,794.35
Kiowa (Riverside).....	Hot-water heat, painting, and electric light, principal's cottage.....	807.00
Kiowa (Rainy Mountain).....	Repairing boys' building.....	590.00
Pawnee.....	Implement shed.....	1,025.00
Ponca.....	Bridge over Salt Fort (Whiteagle).....	5,985.67
Do.....	Laundry.....	3,780.69
Oregon:		
Salem.....	Two boilers, and remodeling the power house.....	7,200.00
Do.....	Remodeling sewer.....	4,700.00
Pennsylvania: Carlisle.....	Refrigerator.....	600.00
South Dakota:		
Canton Asylum.....	Two cisterns.....	1,094.80
Lower Brule.....	Garage.....	665.00
Do.....	One barn.....	2,000.00
Do.....	Repairs to water pipes.....	975.00
Cheyenne River.....	Repairs to bridge at Whitehorse.....	435.00
Pierre.....	Dairy barn.....	5,000.00
Do.....	Boiler installation.....	7,000.00
Yankton.....	Completion water system.....	2,385.55
Springfield.....	Cottage No. 113.....	2,095.00
Utah: Uintah.....	Heating plant hospital.....	3,750.00
Washington:		
Cushman.....	Day school building No. 73.....	1,455.00
Do.....	Water and sewer, Jamestown day school.....	1,033.00
Tulalip.....	Painting school buildings.....	2,611.00
Do.....	Gutters boys' and girls' dormitory.....	1,199.00
Spokane.....	Cottage.....	800.00
Colville.....	Farmer's cottage.....	2,303.79

TABLE 34.—*Buildings, etc., under construction or contract during fiscal year ended June 30, 1917—Continued.*

State and superintendencies.	Improvement.	Cost.
Wisconsin:		
Lac du Flambeau.....	Employees cottage.....	\$9,780.00
Hayward.....	Dairy barn.....	3,200.00
Wyoming:		
Shoshone.....	Steel span bridge.....	4,180.00
Do.....	Hospital (remodelling trader's store).....	3,000.00
Do.....	Farmer's cottage.....	1,272.80
Western Shoshone.....	Employees' quarters No. 109.....	1,700.00

TABLE 35.—Number and value of individual and tribal live stock, poultry, etc., belonging to Indians, and value of stock purchased, sold, and slaughtered, fiscal year ended June 30, 1917.

States and superintendencies.	Value.		Number of stock on reservation.					Stock purchased, current year.						Value of stock.	
	All stock.	Other stock (horses, mules, ponies, poultry).	Horses and mules.	Mares.	Stallions and jacks.	Cattle.			Total value.	Value mules, horses, and jacks.	Number stallions and jacks.	Number cows and heifers.	Number bulls.	Sold.	Slaughtered.
						Cows and heifers.	Steers.	Bulls.							
Total, 1917.	\$23,944,660	\$641,066	156,021	88,074	5,172	217,683	82,550	6,708	688,117	30,066	2,399	20	5,239	654,834	3,168,157,512
1916.	26,824,439	487,516	174,736	87,344	5,362	202,764	67,602	6,483	694,445	57,685	2,357	43	7,439	2,583,089	1,003,170
1915.	27,166,323	442,056	213,538	147,319	9,433	187,606	68,948	6,055	1,508,526	48,576	3,032	72	15,304	1,194	2,114,623
1914.	24,462,944	490,262	215,618	146,068	10,772	185,998	64,581	4,718	1,890,918	57,733	2,999	17,066	1,018	1,599,633	671,924
1913.	22,777,075	(*)	438,908	283,586	25,254	160,127	63,362	4,966	1,568,509	82,274	3,451			1,783,960	835,774
1912.	22,238,242		631,123		205,114				1,798,267					1,571,766	490,898
1911.	17,971,209		530,000		269,321				1,219,167						
1900.	8,187,818		353,387		267,610				576,710						
1890.	6,384,441		443,244		170,419				964,759						
Arizona.	7,283,646	35,138	56,383	16,760	2,366	83,720	19,321	2,106	64,204	2,712	27	2	813	1,178,768	779,967
Camp Verde.	1,280		20											187	
Colorado River.	79,249	6,139	209		50	769	129	32	1,038		12			23,349	1,640
Fort Apache.	515,560	2,500	2,500			11,000	1,500	380	36,682						7,500
Tribal.	11,488					500		120	36,275		1			1,000	366
Navajo.	15,680	225	387	224	4	450	10	7						1,000	
Kaibab.	15,610	10	28			450		23							
Tribal.	12,000					187									
Leupp.	613,500	3,000	2,500		(*)	2,000	700	35	1,975	1,575				26,128	50,135
Maricopa.	179,000	4,100	2,000		139	2,000	5,200	108	1,550	1,550				20,889	115,150
Maricopa.	3,137,020	2,323	26,800		880	12,781	6,400	650	320,000					918,000	550,000
Pima.	41,475,978	1,724	2,800		887	5,490	3,400	160	4,700					24,000	1,880
Pinal.	19,470	3,750	670		101	250	170	12	14,700		16			15,800	4,000
Salt River.	14,700					250		26							
Tribal.	122,060	1,500	2,535	900		1,600	250	14						9,508	4,500
San Carlos.	170,675				12	2,275	515	244						114,953	13,770
Tribal.	730,567	6,447	5,100	(*)	122	8,200	6,400	160	3,308	238				1,092	95
San Xavier.	15,650					1,378		48							
Tucson Canon.	65,110		207	3		1,500	1,000	100						10,187	30,512
Western.	408,175	1,675	5,200	5,000	500	1,956	1,671	82	20,975		36			37,720	8,724
Navajo.						27	3,435								
California.	537,060	38,451	2,396	1,956	27	3,435	1,671	82	90					1	
Bishop.	63,430	1,755	775		100	233		28	2,976					3	
Campo.	30,616	2,836	41	46	6			11							

Dodge	790	80	12	100	2	24	1	390	2	2	75	75
Fort Bidwell	680	120	100	2	50	10	3	4,420	2	2	4,420	4,420
Fort Yuma	41,870	12	200	20	15	200	6	750	6	13	9,275	9,275
Greenville	5,000	25	20	1	200	117	6	11,648	13	175	3,908	1,825
Hoppe Valley	5,500	210	1	1	572	235	9	1,000	8	19	6,555	1,246
Malik	53,761	181	219	1	106	106	7	2,717	7	17	1,150	1,680
Pala	55,172	330	262	1	106	106	7	1,404	7	17	6,932	3,570
Round Valley	10,061	76	72	1	56	40	19	1,404	7	17	5,368	320
Tribal	7,237	304	317	1	661	323	19	4,800	20	14	1,541	1,541
Soboba	84,443	310	210	10	540	60	8	410	8	14	1,541	1,541
Tule River	44,480	1,800	310	210	47	2,139	800	90	5,715	4,800	750	750
Colorado	218,975	880	1,362	47	2,139	800	90	5,715	4,800	750	750	750
Southern Ute	51,438	512	(1)	6	139	20	2,000	800	87	20	1,541	1,541
Ute Mountain	182,468	860	21	20	2,000	800	87	2,765	750	750	750	750
Tribal	15,075	20	(1)	6	30	1794	172	14,085	545	44	38	30
Florida: Seminole	4,100	1,500	20	(1)	6	30	1794	172	14,085	545	44	38
Idaho	875,510	35,144	5,372	3,083	55	7,717	1,794	172	14,085	545	44	38
Coeur d'Alene	11,121,180	10,730	1,202	(1)	13	1,050	105	10,575	545	44	38	30
Fur Hall	37,188	4,239	1,653	2,213	30	12,447	184	2,510	545	44	38	30
Tribal	84,545	20,175	2,512	820	12	1,300	500	600	545	44	38	30
Fort Lapwai	280,600	80	80	80	55	7,717	1,794	172	14,085	545	44	38
Iowa: Sac and Fox	9,175	1,175	80	80	55	7,717	1,794	172	14,085	545	44	38
Kansas	348,055	79,470	961	329	5	1,001	215	27	5,497	25	34	5
Kickapoo	1,240,878	62,043	659	149	11	724	208	8	5,497	25	34	5
Potawatomi	107,177	8,427	302	180	4	277	208	8	5,497	25	34	5
Michigan: Mackinac	17,955	2,005	45	45	30	80	80	80	545	44	38	30
Minnesota	419,628	25,411	881	1,105	30	1,724	451	160	386	21,146	424	103
Fond du Lac	38,046	3,371	34	82	97	3	1,375	50	4	9	20,367	10,320
Grand Portage	288	1,122	140	130	6	70	20	4	6	2,660	14	2
Leech Lake	32,612	1,122	140	130	6	70	20	4	6	2,660	14	2
Nett Lake	3,301	126	15	31	2	6	1	150	150	2	2	2
Pinestone (Birch Cooley)	2,085	235	12	42	5	178	63	224	13,863	874	66	45
Red Lake	152,786	8,619	270	442	6	457	178	63	224	13,863	874	66
Tribal	90	410	420	16	1,100	280	90	155	3,028	19	8	1
White Earth	192,520	11,550	410	420	16	1,100	280	90	155	3,028	19	8

* Over estimates last year.
 * Includes stock belonging to the United States.
 * High prices offered and scarcity of feed accounts for decrease in stock.
 * Includes calves.
 * Included with cows and heifers.
 * Includes some ponies.
 * As reported.
 * 1916 report.
 * Includes some tribal stock also.
 * Includes tribal stock valued at \$2,520,911.
 * Unknown.
 * Included with horses and mules.

TABLE 35.—Number and value of individual and tribal live stock, poultry, etc., belonging to Indians, and value of stock purchased, sold, and slaughtered. fiscal year ended June 30, 1917—Continued.

States and superintendencies.	Value.		Number of stock on reservation.					Stock purchased, current year.					Value of stock.				
	All stock.	Other stock (horses, swine, poultry).	Horses and mules.	Mares.	Stallions and jack.	Cattle.			Total value.	Value mules, calves, and ponies.	Number horses, mares, and mules.	Number stallions and heifers.	Number cows and bulls.	Sold.	Slaughtered.		
						Cows and heifers.	Steers.	Bulls.									
Montana.....	\$6,631,864	\$76,568	18,510	15,581	423	52,480	26,542	1,171	4,008	80,560	597	262	1	764	117	9647,402	\$40,938
Blackfoot.....	2,792,600		8,000	4,000	50	20,000	15,000	300								200,000	22,300
Tribal.....	285,000					3,800	450	12							46		
Crow.....	511,831	3,296	3,304	1,781	85	2,800	1,400	27								37,023	3,605
Tribal.....	837,330					10,314	5,782	291							161		
Flathead.....	846,669	61,499	2,606	1,360	112	5,180	1,335	126	3,005	21,169	126	60			175	243,701	10,015
Tribal.....	8,271					71	45	6		5,507					3		
Fort Belknap.....	206,420	1,300	1,000	1,500	30	1,200	270	20	2,000	2,400	20				270	12,000	2,140
Tribal.....	138,700					1,700	210	88	1,000	2,500	10				24	61,512	2,778
Fort Peck.....	414,290	6,020	2,000	2,240	40	1,925	500	50	1,000	2,500							
Tongue River.....	535,103	4,483	1,601	4,600	91	2,300	1,500	8		8,752	597	86	1			33,167	
Tribal.....	75,000					1,100	50	145		26,685					518		
Nebraska.....	408,725	59,369	2,193	1,005	2	385	112	16		8,925	685	47			10		
Omaha.....	217,850	36,650	1,175	625	2	175		8		8,925	685	47			10		
Tribal.....	40,000	29,284	1,140	240		250	112	6									
Winnebago.....	146,875	13,426	800	240		160		2									
Nevada.....	352,572	7,101	4,542	976	10	2,263	1,227	59	8	10,885		22	4	40	30		
Fallon.....	9,942	922	85	96		2											
Fort McDowell.....	9,365	40	200	(¹)	1	2				610		6				720	(¹)
Moapa River.....	4,600	300	70	20					8	400			1			(¹)	220
Nevada.....	19,600	819	(¹)													178	998
Walker River.....	21,500	1,165	178	200		163	26			2,400		12		20		2,567	50
Tribal.....	47,801					300	66			195		4					
Western Shoshone.....	190,634	284	600	650	7	1,200	1,000	23		2,250					15		
Tribal.....	3,000					1,200	1,000	3		1,400			3	20		22,027	4,964
Remo: Special agent.....	35,300	4,300	3,000			26		24		3,600						(¹)	(¹)

New Mexico.....	4, 127, 796	24, 489	20, 026	13, 000	1, 021	19, 072	4, 913	309	800, 118	39, 931	8, 314	16	1	600	47	201, 845	96, 062
Jicarilla.....	1, 124, 210	380	1, 408	(¹)	60	400	66	6	6, 800	1, 245	920	3				12, 275	1, 107
Tribal.....	1, 161, 320	190	20			1, 122	361	79	9, 268	2, 400					40	11, 800	2, 400
Mescalero.....	150, 600	260	695	1, 400	47	800	25	9	6, 000	20, 882		10		7 600			
Tribal.....	105, 400	2	2	40	6	1, 000	400	69								(¹)	(¹)
Pueblo Bonito.....	825, 500		3, 100	3, 000	205	1, 800	300	100	146, 000	1, 200	1, 200						
Tribal.....	4, 000																
Pueblo day schools.....	1, 163, 360	12, 890	3, 925	3, 200	171	7, 940	1, 500	425	84, 000	309	144		1			121, 870	40, 365
San Juan.....	1, 132, 598	5, 266	11, 000	10, 000	800	4, 990	2, 012	80	198, 300	6, 550	6, 550	3				56, 900	52, 300
Zuni.....	1, 408, 580	5, 500	440	450	32	750	250	45	51, 000	375						6, 945	6, 400
North Carolina: Cherokee.....	56, 260	13, 660	100	25		550	300	20	250								
North Dakota.....	1, 666, 413	9, 813	7, 469	3, 475	91	10, 713	3, 707	156	3, 602	16, 624	463	59	1	106		100, 370	21, 365
Fort Berthold.....	498, 985	975	3, 394	(¹)	43	2, 277	1, 240	73								42, 695	3, 110
Fort Totten.....	60, 330	1, 370	250	350		16										17, 675	15, 265
Standing Rock.....	920, 368	2, 433	2, 700	2, 700	38	7, 770	2, 217	13	2	16, 161		59		106		(¹)	(¹)
Turtle Mountain.....	190, 580	5, 080	332	426	10	700	250	30	3, 500	463	463		1				
Oklahoma.....	1, 551, 487	67, 514	5, 573	1, 888	39	5, 547	4, 029	127	624	71, 866	2, 670	371		133	9	251, 345	29, 884
Cantonment.....	45, 708	1, 087	415	250	13	55	35	7	20	15, 496		105		5	1	1, 260	455
Cheyenne and Arapaho.....	141, 175	4, 545	988	218	15	133	103	7	1	23, 501	155	141		28	2		
Kiowa.....	150, 000	(¹)		(¹)	(¹)	(¹)	(¹)									(¹)	(¹)
Osage.....	672, 680	10, 710	1, 286	400	8	3, 300	4, 000	88	40	12, 435	1, 235	26		117	6	207, 500	2, 745
Ojibwa.....	75, 948	3, 724	276	174		73	1		4	8, 231	1, 220	29		6		207, 240	2, 268
Pawnee.....	44, 308	5, 330	219	163	1	112	85	4		2, 590	30	20		14		750	1, 280
Ponca.....	62, 462	3, 932	490	151		85	25	6		2, 358	25	8		12		1, 358	2, 136
Sac and Fox.....	59, 268	5, 113	277	42		271	6			7, 2, 665		14				40, 228	
Seger.....	72, 204	1, 746	1, 270	720		775		14	555								
Sonoma.....	146, 666	14, 896	743	240	2	767	118	11	4	4, 650	5	28		1		117, 970	5, 370
Shawnee.....	70, 931	11, 372	564	961	152	12, 042	2, 029	131	548	20, 218		8		402			
Oregon.....	1, 280, 252	20, 926	4, 929	1, 461													
Klamath.....	921, 770	2, 420	9, 000	34	11, 360	1, 600		10		20, 218		8		402		83, 000	
Tribal.....	9, 000		(¹)	(¹)	(¹)	(¹)	(¹)	(¹)								(¹)	(¹)
Roseburg.....	35, 000	(¹)		43		112	28	6	548								
Siletz.....	15, 320	1, 060	68					16								22, 800	3, 660
Umatilla.....	129, 345	17, 155	1, 100	918	50	180		23								12, 170	1, 720
Warm Springs.....	53, 150	290	1, 151	(¹)	54	397	401	5									
Tribal.....	5, 697			14	2												

1 Includes steers.
 2 1915 report.
 3 Includes colts.
 4 Not reported.
 5 Includes with horses.
 6 About 1,000 head, lost by starvation.
 7 As reported.
 8 Includes calves.
 9 Overestimated last year.
 10 Includes Red Moon.
 11 No record.
 12 Underestimated last year.
 13 Includes with horses and mules.

TABLE 35.—Number and value of individual and tribal live stock, poultry, etc., belonging to Indians, and value of stock purchased, sold, and slaughtered fiscal year ended June 30, 1917.—Continued.

States and superintendencies.	Value.	Number of stock on reservation.						Stock purchased, current year.					Value of stock.					
		All stock.	Other stock (horses, mules, swine, poultry).	Horses and mules.	Mares.	Stallions and jacks.	Cattle.			Sheep and goats.	Total value.	Value mules, colts, and ponies.	Num-ber horses, mules, and jacks.	Num-ber stallions and jacks.	Num-ber cows and calves.	Num-ber bulls.	Sold. ¹	Slaughtered.
							Cows and calves.	Steers.	Bulls.									
South Dakota.....	\$4,813,431	\$71,423		15,616	17,551	483	25,986	9,774	926	3,331	185,814	3,728	970	9	1,328	164	\$416,897	\$117,300
Cherokee River Tribal.....	678,750	7,080	2,700	3,300	55	3,700	1,700	186	300	20,311		12			340		49,060	10,200
Crow Creek Tribal.....	27,789		4		68				15	5,890						60		
Flaxman. Tribal.....	322,000	6,400	1,200	1,660	26	1,600	800	15		11,976	1,470	47			65	8	61,600	12,763
Lower Brule. Tribal.....	174,735	3,065	350	650	7	1,280	300	118	5	4,764	168	37	1		7	2	3,400	2,885
Pine Ridge Tribal.....	64,145				17	1,539	83	118	329	7,875								
Pine Ridge Tribal.....	1,872,742	9,302	6,017	6,323	177	11,207	4,448	78	1,117	66,641	273	637	1		537	10	278,637	90,153
Rosebud Tribal.....	1,305,474	21,626	4,147	4,726	97	6,960	2,244	92		43,968	465	263	7		243	7	(¹)	(¹)
Sisseton Tribal.....	25,850		2		18			110		12,345	225	39			135	1	16,560	
Yankton.....	\$158,777	4,767	664	429	4	315	30	20	374	9,065	1,128	46			11	1		
Utah.....	446,905	3,432	1,565	429	57	3,012	1,153	113	2,604	54,638	4,287	90	1	490	36	10,899	3,350	
Goshute.....	10,465	265	180					2										
Shirwits.....	4,185	75	50	11		1	10	1	1	1,460		12						
Utah and Oury.....	\$432,155	3,092	\$1,355	418	56	3,000	1,102	110	2,603	83,163	4,287	78	1	490	36	10,899	3,350	
Washington.....	782,483	80,306	4,641	1,844	192	7,831	1,774	247	6,464	12,070	300	59	1	48	4	106,394	19,710	
Colville.....	\$485,555	30,745	2,066	1,340	108	4,575	1,388	167								86,886	16,887	
Tribal.....	20,265		6		39			12										
Cushman.....	\$26,613	1,466	184	62	4	233	30	2	18							2,510	490	
Neah Bay.....	10,222	3,807	89	48	2	128	15	3								330		
Spokane.....	31,892	3,840	216	214	40	366	26	6		1,700		10				3,866	1,735	
Tribal.....	2,600		350															
Tubac.....	\$12,759	239	45	34	3	69		13										
Tulsa.....	91,227	13,279	260	146	2	\$770	52	23	1,446	4,600	170	10		25	3	9,832	318	
Yakima.....	101,910		1,499		27	1,113	200	31	5,000	5,710	130	39	1	13	1	(¹)	(¹)	

Wisconsin.....	452,492	24,017	1,323	896	23	1,037	121	30	44	47,339	3,069	196	98	14,415	11,802
Grand Rapids.....	74,398	2,364	300	325	2	15	6	2	.....	7,100	810	58	8	(¹)	(¹)
Hayward.....	19,600	1,710	100	100	6	150	25	10	.....	945	40	10	2	1,340	540
Keshena.....	90,564	4,539	392	226	.....	200	50	6	17	19,610	820	70	15	3,275	5,622
Leo du Flambeau.....	21,295	390	75	70	3	35	.....	2	.....	955	100	3	8	.....	.....
Leona.....	21,190	730	150	20	10	50	.....	.....	.....	8,350	1,080	30	25	.....	.....
La Pointe.....	77,830	7,430	87	140	1	150	150	10	25	8,660	210	22	33	.....	.....
Onida.....	138,690	6,040	815	(¹)	.....	1,010	.....	(¹)	.....	1,240	.....	5	2	(¹)	(¹)
Red Cliff.....	8,994	814	17	12	.....	27	.....	.....	2	450	.....	.....	5	.....	.....
Wyoming.....	706,216	2,318	930	1,600	131	6,613	2,667	267	200	7,704	.....	42	15	30	2,650
Shoshone.....	417,568	2,318	902	1,600	110	3,500	1,200	90	200	5,454	.....	42	15	.....	2,650
Tribal.....	298,648	.....	28	.....	21	3,113	1,467	177	.....	2,340	.....	.....	.....	30	.....

1 Includes some tribal stock also.
 2 Includes calves.
 3 Includes steers.
 4 No record.

5 As reported.
 6 Includes ponies.
 7 Decrease due to various conditions.
 8 Included with horses and mules.

9 None; castrated.
 10 Includes colts.

TABLE 36.—*Distribution of Government property valuations, June 30, 1917.*

States and superintendencies.	Total value.	General adminis- tration.	Health.	Allot- ting.	Irriga- tion.	Farming.	Forestry.	School.
Grand total.....	\$37,209,436	\$3,579,521	\$1,349,207	\$18,375	\$15,125,625	\$1,705,682	\$1,163,084	\$14,277,942
Arizona.....	3,019,030	307,071	213,814	350	16,106	206,884	34,193	2,227,613
Camp Verde.....	34,035	29,150	300					4,585
Colorado River.....	88,200	5,280	895			11,390		70,655
Fort Apache.....	373,641	68,758	12,050			12,881	19,672	280,280
Fort Mojave.....	97,815	1,350	5,800			10,390		80,275
Havasupai.....	8,075	2,755	240			1,920		3,160
Kalbab.....	5,640	1,457	60					4,123
Leupp.....	96,156	12,330	6,255		3,550	3,696		70,326
Moqui.....	201,600	26,200	28,800			6,850		139,750
Navajo.....	474,610	42,075	48,000			8,500	2,621	373,414
Phoenix.....	734,987		66,614					668,373
Pima.....	243,066	3,437	19,075	350	12,555	91,882		115,767
Ride Station.....	109,608		4,825					104,783
Salt River.....	37,150	11,750	3,475			1,720		20,206
San Carlos.....	145,654	84,900	5,000			12,450	11,900	31,344
San Xavier.....	60,309					15,697		24,769
Truxton Canon.....	148,941	3,176	6,325					138,540
Western Navajo.....	180,443	4,570	6,090			32,518		117,265
California.....	979,050	72,513	48,540	275	43,461	85,380	4,933	723,948
Bishop.....	32,933	1,280	100	125		440		30,988
Campo.....	11,668	2,285	200			1,100		8,063
Digger.....	9,435							
Fort Bidwell.....	80,972	650	675	150				79,497
Fort Yuma.....	88,419	750						87,669
Greenville.....	66,378		4,520					61,858
Hoopa Valley.....	97,547	10,500	16,275			6,075	1,800	62,897
Maki.....	17,050	13,930	110		1,900			1,110
Pala.....	70,724	12,780	1,620		41,486	4,200		10,878
Round Valley.....	85,331	5,012	425			498	2,906	76,501
Sherman Insti- tute.....	371,376		24,365			63,882		283,129
Soboba.....	41,451	13,885	250			9,135		15,181
Tule River.....	15,766	2,006			75		228	13,457
Colorado.....	102,450	34,009	2,989	60	2,140	13,790		49,462
Southern Ute.....	66,628	20,323	1,850	60	2,140			42,258
Ute Mountain.....	35,822	13,686	1,139			13,790		7,207
Florida: Seminole.....	75	75						
Idaho.....	468,902	88,020	38,180		27,293	92,721	1,570	221,118
Coeur d'Alene.....	62,990	49,902	1,635			980	570	9,903
Fort Hall.....	256,905	38,118	11,445		27,293	21,275		158,774
Fort Lapwai.....	149,007		25,100			70,466	1,000	52,441
Iowa: Sac and Fox.....	88,636		82,340					6,296
Kansas.....	568,908	9,150	24,588			126,927		409,143
Haskell Institute.....	476,680		24,338			119,797		332,496
Kickapoo.....	78,106		200			6,130		71,776
Potawatomi.....	14,022	9,150						4,872
Michigan.....	237,127	310	11,515					226,302
Mackinac.....	2,385	310						2,075
Mount Pleasant.....	234,742		11,515					223,227
Minnesota.....	802,782	121,221	87,683			4,519	31,416	567,933
Cass Lake.....	16,010							16,010
Fond du Lac.....	36,889	7,525	25,194			80		4,160
Grand Portage.....	9,482	9,132					350	
Leech Lake.....	106,988	32,336	6,262					67,340
Nett Lake.....	30,334	4,200	175				271	25,688
Pipestone.....	166,301		5,500					160,801
Red Lake.....	147,374	22,947	24,297			4,439	6,795	88,806
Vermillion Lake.....	80,480						24,000	56,480
White Earth.....	209,974	45,091	26,325					128,558

1 1916 report.

TABLE 36.—*Distribution of Government property valuations, June 30, 1917—Continued.*

States and superintendencies.	Total value.	General administration.	Health.	Allotting.	Irrigation.	Farming.	Forestry.	School.
Montana.....	\$1,551,218	\$376,478	\$64,437	\$740	\$386,926	\$114,445	\$19,340	\$588,867
Blackfeet.....	177,070	38,494	23,417	.....	.....	6,225	.....	108,924
Crow.....	343,362	121,316	20,165	.....	62,617	24,725	475	114,064
Flathead.....	404,558	76,878	945	.....	214,601	700	10,865	574
Fort Belknap.....	347,580	66,200	1,950	.....	8,308	47,970	5,000	218,252
Fort Peck.....	155,153	50,840	15,310	740	.....	12,985	.....	75,278
Tongue River.....	123,495	22,750	2,650	.....	1,500	21,840	3,000	71,755
Nebraska.....	428,200	80,820	8,418	.....	.....	23,485	.....	315,477
Genoa.....	316,956	.....	6,423	.....	.....	.....	.....	310,533
Omaha.....	20,040	5,555	.....	.....	.....	23,485	.....	.....
Santee.....	24,080	23,385	695	.....	.....	.....	.....	.....
Winnebago.....	58,124	51,880	1,300	.....	.....	.....	.....	4,944
Nevada.....	330,153	49,310	31,298	23	330	44,121	.....	205,101
Carson.....	129,174	1,921	20,223	.....	.....	20,635	.....	77,895
Fallon.....	11,387	.....	.....	.....	.....	.....	.....	11,387
Fort McDermitt.....	16,930	3,825	800	.....	70	3,785	.....	8,450
Moapa River.....	6,845	800	495	.....	110	.....	.....	5,940
Nevada.....	76,624	8,599	.....	.....	.....	.....	.....	68,025
Walker River.....	20,617	4,525	1,850	.....	.....	6,026	.....	8,216
Western Shoshone.....	61,164	22,766	7,885	.....	150	4,675	.....	25,688
Reno, special agent.....	7,442	17,374	45	23	.....	.....	.....	.....
New Mexico.....	1,540,415	81,399	86,904	250	12,595	155,722	29,677	1,173,868
Albuquerque.....	321,415	9,220	11,270	.....	.....	48,940	.....	251,985
Jicarilla.....	165,492	35,876	20,777	.....	.....	14,034	11,677	83,128
Mescalero.....	152,443	14,698	19,045	.....	.....	14,905	10,650	93,145
Pueblo Bonito.....	145,438	.....	1,300	250	.....	9,040	.....	124,848
Pueblo day schools.....	140,004	1,725	16,224	.....	.....	13,420	.....	108,625
San Juan.....	240,733	19,630	6,700	.....	.....	29,723	7,350	177,330
Santa Fe.....	223,150	.....	2,750	.....	.....	.....	.....	220,400
Zuni.....	151,740	250	8,838	.....	12,595	25,650	.....	104,407
New York Agency.....	710	135	575	.....	.....	.....	.....	.....
North Carolina: Cherokee.....	124,425	330	.....	.....	.....	180	3,150	120,765
North Dakota.....	1,019,717	161,930	79,489	313	.....	81,496	.....	696,499
Bismarck.....	84,361	.....	.....	.....	.....	.....	.....	84,361
Fort Berthold.....	80,828	44,095	1,777	313	.....	25,993	.....	8,060
Fort Totten.....	198,074	7,729	6,185	.....	.....	4,310	.....	177,860
Standing Rock.....	242,129	69,302	31,775	.....	.....	45,108	.....	192,964
Turtle Mountain.....	84,765	34,256	19,587	.....	.....	3,083	.....	27,837
Wahpeton.....	231,550	5,948	20,165	.....	.....	.....	.....	205,437
Oklahoma.....	2,272,116	208,474	137,062	75	.....	251,844	.....	2,674,661
Cantonment.....	109,168	5,525	.....	75	.....	64,035	.....	39,533
Cheyenne and Arapaho.....	407,700	23,439	20,808	.....	.....	87,984	.....	275,474
Chilocco.....	793,045	.....	.....	.....	.....	.....	.....	793,045
Five Civilized Tribes.....	65,985	15,035	50,950	.....	.....	.....	.....	399,861
Kiowa.....	580,075	42,950	59,950	.....	.....	77,324	.....	152,210
Osage.....	226,340	42,090	1,040	.....	.....	\$1,000	.....	63,000
Otoe.....	63,000	.....	.....	.....	.....	.....	.....	63,000
Pawnee.....	126,184	31,531	375	.....	.....	.....	.....	104,278
Ponca.....	83,351	16,755	300	.....	.....	5,503	.....	60,793
Sac and Fox.....	53,815	14,425	.....	.....	.....	.....	.....	39,390
Seger.....	178,957	10,414	3,101	.....	.....	900	.....	164,542
Seneca.....	27,521	.....	.....	.....	.....	.....	.....	27,521
Shawnee.....	113,668	6,310	.....	.....	.....	.....	.....	107,358

¹ Increase due to land.

² 1916 report.

³ As reported.

TABLE 36.—*Distribution of Government property valuations, June 30, 1917—Continued.*

States and superintendencies.	Total value.	General adminis- tration.	Health.	Allot- ting.	Irriga- tion.	Farming.	Forestry.	School.
Oklahoma—Contd.								
Five Civilized Tribes schools.	\$433,277		\$543			\$15,098		\$417,636
Armstrong Male Acad- emy.....	52,836							52,836
Bloomfield Seminary..	35,196							35,196
Cherokee Orphan School.....	49,556							49,556
Collins Insti- tute.....	18,325							18,325
Euchee Boarding School.....	50,068					\$11,563		38,525
Eufaula Boarding School.....	36,615		\$150			3,535		32,930
Jones Male Academy..	31,500							31,500
Mekuskey Academy..	56,014		318					55,696
Nuyaka Boarding School.....	29,286		75					29,211
Tuskahoma Female Academy..	39,855							39,855
Wheelock Female Academy..	34,006							34,006
Oregon.....	752,469	\$19,731	7,935	30	\$9,319	14,735	\$37,780	662,969
Klamath.....	163,220	6,755	2,440		9,319	11,735	25,260	107,711
Roseburg.....	2,280	2,200		30			50	
Salem.....	344,323							344,323
Siletz.....	16,916	6,501	1,650					8,765
Umatilla.....	127,000	300	1,400				600	124,700
Warm Springs..	98,730	3,975	2,445			3,000	11,860	77,480
Pennsylvania: Car- lisle.....	559,367		27,525			91,593		440,249
South Dakota.....	2,864,967	627,877	297,876	6,610	27,700	290,314	189,132	1,425,458
Canton Asylum	144,042		144,042					
Cheyenne River..	376,161	183,676	41,581	4,845	1,200	43,610		101,249
Crow Creek.....	124,622	30,826	17,671	225		11,930		64,070
Flandreau.....	252,326	6,640	4,300			57,555		183,821
Lower Brule.....	132,531	64,626	6,275			8,860		52,780
Pierre.....	267,050		7,600		26,500	47,938		185,012
Pine Ridge.....	680,667	196,800	21,547	500		28,805	\$ 189,067	263,358
Rapid City.....	261,821	4,190	5,106			64,781		187,845
Rosebud.....	409,838	86,742	47,681	1,040		26,310	75	249,090
Sisseton.....	79,461	19,361	450					59,650
Springfield.....	32,196							32,196
Yankton.....	94,752	35,016	1,824			1,525		56,387
Utah.....	403,018	295,478	6,960		37,971	6,200	5,080	51,329
Goshute.....	2,970							2,970
Shiwiwits.....	8,355	226	145					8,980
Uintah and Ouray	390,693	295,248	6,816		37,971	6,200	5,080	39,379
Washington.....	1,692,607	781,339	59,277			67,790	51,778	732,423
Colville.....	192,458	67,607	4,068			59,180	35,258	25,445
Cushman.....	441,489	2,555	11,000					427,934
Neah Bay.....	9,085	4,180						4,935
Spokane.....	711,040	\$ 655,276	33,229				6,850	15,686
Taholah.....	20,935		800				760	19,386
Tulalip.....	209,038	27,941	6,558				1,415	173,125
Yakima.....	108,554	23,800	2,725			8,610	7,506	65,914

¹ As reported.² Includes forest reserve.³ Includes value land and old Spokane Sanatorium.

TABLE 36.—*Distribution of Government property valuations, June 30, 1917*—Continued.

States and superintendencies.	Total value.	General adminis- tration.	Health.	Allot- ting.	Irriga- tion.	Farming.	Forestry.	School.
Wisconsin.....	\$1,423,124	\$43,650	\$25,237	\$665	.....	\$27,366	\$726,555	\$599,651
Grand Rapids....	962	237	.....	.....	.....	725	.....	.....
Hayward.....	123,297	2,536	4,875	.....	.....	30,761	25	95,100
Keshena.....	878,831	31,330	11,847	.....	.....	3,710	726,290	105,654
Lac du Flambeau	88,002	760	1,370	.....	.....	.....	.....	86,882
Leona.....	1,500	1,215	265	.....	.....	.....	.....	.....
La Pointe.....	8,122	7,142	125	665	.....	150	40	.....
Onida.....	69,607	.....	1,460	.....	.....	.....	.....	68,147
Red Cliff.....	3,520	440	540	.....	.....	2,020	200	320
Tomah.....	185,738	.....	4,735	.....	.....	.....	.....	181,003
Wittenberg.....	63,645	.....	.....	.....	.....	.....	.....	63,546
Wyoming: Shoshone.	359,928	158,432	6,565	.....	\$12,421	4,170	18,500	159,840
State totals.....	22,589,324	3,517,757	1,349,207	9,391	576,261	1,705,682	1,163,084	14,277,942
Miscellaneous.....	14,620,112	61,764	.....	8,984	14,549,364	.....	.....	.....
Warehouses.....	1 2,884	1 2,884	.....	.....	.....	.....	.....	.....
Liquor suppres- sion.....	1 650	1 650	.....	.....	.....	.....	.....	.....
Allotting service.	1 8,984	.....	.....	1 8,984	.....	.....	.....	.....
Irrigation service (cost).....	14,549,364	.....	.....	.....	14,549,364	.....	.....	.....
Indian Office.....	58,230	58,230	.....	.....	.....	.....	.....	.....

¹ 1916 report.

TABLE 37.—Value of Indians' individual and tribal property, June 30, 1917.

States and superintendencies.	Individual.					Tribal.						
	Total individual and tribal property.	Total.	Lands, exclusive of timber.	Timber.	Funds in banks and in hands of superintendents. ¹	Homes, furniture, barns, etc.	Wagons, implements, etc.	Stock, poultry, and other property.	Total.	Lands, exclusive of timber.	Timber and stock.	Balance of funds in treasury.
Arizona.												
Total, 1917.	\$655,512,661	\$432,225,913	\$351,398,172	\$10,937,166	\$21,011,127	\$12,040,371	\$5,561,664	\$31,277,413	\$223,286,748	\$102,724,536	\$76,428,522	\$44,133,390
1916.	413,462	437,697	349,073	11,093,545	16,101,626	12,635,814	4,860,244	33,502,619	225,720,815	105,815,540	75,424,227	44,281,048
1915.	653,262,436	488,116,841	368,030,944	11,399,277	12,234,196	9,924,486	3,769,903	24,776,492	220,145,593	101,390,579	76,558,338	42,196,680
1914.	667,454,639	434,872,202	372,776,671	11,373,084	12,251,557	9,924,486	3,769,903	24,776,492	220,145,593	101,390,579	76,558,338	42,196,680
1913.	648,689,092	404,265,024	348,504,283	11,745,511	10,066,276	8,276,906	2,641,908	22,985,945	246,424,067	127,868,467	72,011,067	44,519,584
1911.	623,134,254	380,934,110	331,426,404	9,106,470	10,735,723	7,796,906	2,232,379	19,633,329	242,200,144	124,942,410	75,413,904	41,843,880
53,617,740	11,171,842	3,316,677		4,000	3,507	383,690	869,650	7,094,928	43,445,898	30,076,906	12,162,628	206,674
California.												
Camp Verde.	2,460	2,460				220	1,000	1,200	4,733,714	4,674,000	22,500	57,214
Colorado River.	6,232,128	478,409	866,100		2,860	28,200	7,000	79,249	9,164,049	8,523,940	2,616,498	26,716
Fort Apache.	9,685,749	531,700				1,700	3,709	15,900	14,459			
Havasupai.	34,010	19,890			6	2,900	600	21,220	219,217	206,217	13,000	
Kalabab.	243,092	23,875				2,500	23,250	618,250	1,841,000	1,841,000		
Laopu.	1,456,340	645,000				47,000	12,000	795,000	3,247,252	4,046,996	7,600,000	
Navajo.	2,695,000	3,960,894	1,398,900		642	56,000	65,000	486,226	3,937,722	2,893,150	80,000	
Pima.	16,507,733	1,963,125	1,767,440			22,000	85,000	151,570	609,850	3,689,401	14,700	
Salt River.	1,503,860	894,010				21,000	7,000	122,000	3,689,401	2,682,154	773,925	96,136
San Carlos.	3,660,031	1,900,600		4,000		137,000	128,000	738,867	2,682,154	1,786,674	141,910	29,608
San Xavier.	4,463,858	1,801,804	796,267			2,500	2,800	115,000	998,468			
Truxton Canon.	1,020,448	23,850				6,000	10,200	416,173	1,786,674			
Western Navajo.	2,162,049	432,375										
9,032,792	4,968,526	2,167,078	1,915,000		34,096	197,446	101,650	541,888	4,077,267	3,117,676	981,037	28,555
Colorado.												
Bishop.	413,051	338,051	265,200		921	10,000	8,500	63,430	80,000	80,000		
Campo.	112,140	89,111				6,300	2,500	3,471	72,038	72,038	200	
Diggs.	17,240	12,445	9,000			2,500	7,500	14,830	24,798	4,788		
Fort Bidwell.	224,211	128,500	128,500	40,000	931	8,500	19,000	4,870	64,931	58,000	26,000	2,985
Fort Yuma.	854,605	789,670	721,800			10,000	4,000	7,200	17,000	17,000		
Greenview.	244,998	229,898	194,300			12,376	5,500	50,259	609,458	159,000	425,000	25,458
Hoopa Valley.	2,604,832	1,695,124	118,000	1,800,000	9,374	13,000	25,750	56,346	2,014,035	2,014,035		
Malibu.	2,126,031	1,111,946				20,000	13,550	55,197	259,613	259,613	1,000	
Pala.	488,650	228,437	127,600			31,700	6,700	96,061	7,719		7,237	162
Round Valley.	841,634	633,715	610,668	75,000	9,368	46,000	6,375	90,743	398,594	385,994	12,600	
Soboba.	521,412	122,818				26,700	6,375	90,743	398,594	385,994	12,600	
Tule River.	579,041	56,041			1,081	9,000	1,500	44,460	623,000	67,000	465,000	

Colorado.....	1,296,106	597,278	253,920	4,000	127,458	13,000	10,000	208,900	668,828	613,226	15,075	170,528
Southern Ute	486,828	315,355	253,920	4,000	11,000	10,000	10,000	56,435	154,473	.....	.....	154,473
Ute Mountain	526,278	281,928	.....	.....	2,000	.....	.....	152,465	544,355	613,226	15,075	16,065
Florida: Seminole.....	115,846	4,100	.....	.....	.....	.....	.....	4,100	111,746	.....	.....	.....
Idaho.....	15,579,576	12,593,368	10,890,060	142,800	217,843	308,000	188,000	817,965	2,896,208	1,445,877	1,301,045	239,268
Coeur d'Alene	2,987,572	2,680,879	2,065,025	115,000	183,674	160,000	30,000	133,180	297,962	68,863	14,000	214,380
Fort Hall.....	5,248,322	3,410,553	3,410,553	.....	14,358	88,000	38,000	379,183	1,318,124	761,614	644,545	74,800
Fort Lapwai.....	7,343,682	5,973,291	5,890,380	27,500	19,811	130,000	130,000	305,000	1,370,392	615,400	742,800	12,491
Iowa: Sac and Fox.....	729,138	53,012	.....	.....	28,337	13,000	2,500	9,175	676,124	310,607	1,500	364,017
Kansas.....	3,879,608	3,680,071	2,622,973	.....	233,354	280,034	90,155	433,555	199,837	.....	.....	199,837
Kickapoo.....	1,972,417	1,893,333	1,313,031	.....	110,685	161,564	65,155	240,878	76,084	.....	.....	76,084
Potawatomi.....	1,907,191	1,783,735	1,304,962	.....	122,669	115,500	25,000	212,677	123,455	.....	.....	123,455
Michigan: Mackinac.....	498,007	497,534	168,556	81,962	53,031	155,000	14,000	27,955	473	.....	.....	473
Minnesota.....	17,752,525	9,480,840	5,777,490	163,000	1,081,862	1,630,180	287,600	540,738	8,271,685	1,136,670	1,137,468	5,997,522
Fond du Lac.....	1,099,140	582,591	393,000	10,000	181,545	42,000	9,000	37,048	516,549	.....	.....	516,549
Grand Portage.....	310,981	50,778	60,000	20,000	15,490	.....	.....	238,588	220,183	83,000	10,000	172,183
Leech Lake.....	2,089,315	1,228,401	599,214	40,000	212,675	408,000	16,000	42,512	890,914	.....	.....	890,914
Nett Lake.....	938,678	649,707	558,848	70,000	8,407	8,730	2,200	3,501	286,971	.....	.....	286,971
Pipestone (Birch Cooley).....	70,454	70,454	45,500	.....	14,069	8,400	.....	2,083	.....	.....	.....	.....
Red Lake.....	3,594,587	408,914	.....	.....	94,123	90,000	60,000	162,788	3,157,673	1,061,460	1,102,833	963,360
Vermillion Lake.....	24,000	.....	.....	.....	.....	.....	.....	.....	24,000	.....	24,000	.....
White Earth.....	9,657,390	6,451,965	4,310,927	15,000	555,548	1,075,000	200,000	292,520	3,205,386	37,250	.....	3,167,545
Montana.....	51,905,508	25,084,151	17,196,097	813,965	759,402	549,224	455,000	5,305,463	26,321,357	17,262,787	7,434,101	2,124,469
Blackfeet.....	9,217,217	6,067,774	3,025,100	.....	485,154	160,174	90,000	2,792,500	3,149,443	2,136,187	941,200	72,056
Crow.....	12,622,967	5,578,902	4,355,167	2,000	.....	120,000	95,000	611,581	7,044,168	5,531,107	838,830	654,028
Flathead.....	12,322,292	5,446,285	3,476,100	732,500	159,036	145,000	87,000	846,599	6,376,077	1,652,963	4,608,271	714,943
Fort Belknap.....	6,108,550	238,650	.....	.....	10,239	13,000	9,000	205,420	5,869,000	5,539,200	330,700	.....
Fort Peck.....	7,775,227	7,125,521	6,342,730	79,465	70,516	74,550	144,000	414,260	649,706	.....	.....	649,706
Tongue River.....	3,889,255	637,019	.....	.....	24,416	36,500	31,000	535,103	3,222,236	2,403,400	795,000	33,836

* Data incomplete.
 * Includes \$2,520,911, tribal stock.
 * Includes interest balances on interest bearing trust funds, and \$3,369,290 tribal funds of the Five Civilized Tribes in State and National banks of Oklahoma.
 * Includes tribal stock.
 * As reported.
 * 1916 report.

TABLE 37.—*Value of Indians' individual and tribal property, June 30, 1917—Continued.*

States and superintendencies.	Total Individual and tribal property.	Individual.					Tribal.					
		Total.	Lands, exclusive of timber.	Timber.	Funds in banks and in hands of superintendents. ¹	Homes, furniture, barns, etc.	Wagons, implements, etc.	Stock, poultry, and other property.	Total.	Lands, exclusive of timber.	Timber and stock.	Balance of funds in treasury.
Nebraska.....	\$10,127,793	\$9,690,898	\$8,361,162	.....	\$398,011	\$398,000	\$143,000	\$408,726	\$436,896	\$173,367	.....	\$284,528
Omaha.....	5,358,138	5,152,109	4,200,000	.....	334,259	288,000	112,000	217,850	206,049	180,000	.....	56,049
Santee ¹	888,732	770,892	658,146	.....	60,752	11,000	4,000	40,000	67,840	.....	.....	67,840
Winnebago.....	3,980,903	3,767,897	3,506,022	.....	.....	89,000	27,000	145,875	163,006	22,367	.....	140,639
Nevada.....	3,087,543	1,667,667	1,009,510	\$8,000	4,981	70,430	267,075	307,671	1,419,876	1,380,404	\$68,401	6,071
Fallon.....	148,047	145,047	125,180	.....	.....	7,800	2,125	9,942	3,000	3,000	.....	.....
Fort McDermitt.....	64,135	55,985	35,530	.....	.....	4,000	7,000	9,355	8,240	8,240	.....	.....
Moapa River.....	161,490	161,490	156,000	.....	.....	8,500	7,750	4,865	.....	.....	.....	.....
Nevada.....	681,930	30,430	.....	.....	.....	6,280	2,200	21,950	681,500	680,500	12,000	(1)
Walker River.....	528,825	404,068	361,800	.....	708	11,000	8,000	32,590	122,727	74,928	47,801	(5)
Western Shoshone.....	1,058,543	430,134	.....	.....	.....	14,500	222,000	193,634	628,409	618,738	3,600	6,071
Reno, special agent.....	446,573	440,573	342,000	8,000	4,273	26,000	26,000	35,300	6,000	6,000	.....	.....
New Mexico.....	22,762,242	6,336,296	316,832	1,140,000	70,670	700,175	212,815	3,986,804	16,428,946	11,352,318	4,981,140	112,488
Yucilla.....	2,190,556	1,610,530	316,832	1,140,000	5,498	11,175	10,815	126,210	580,026	292,785	191,520	95,721
Mescalero.....	5,501,670	259,708	.....	.....	65,103	28,000	16,000	150,800	6,241,967	619,800	4,605,400	16,767
Pueblo Bonito.....	2,704,500	825,500	.....	.....	.....	(1)	(1)	825,500	1,879,000	1,875,000	4,000	.....
Pueblo day schools.....	4,876,283	1,670,427	.....	.....	37	405,000	98,000	1,172,390	3,205,856	3,132,136	73,720	.....
San Juan.....	5,599,628	1,331,628	.....	.....	32	86,000	33,000	1,212,696	4,268,000	4,204,000	64,000	.....
Zuni.....	1,889,605	638,608	.....	.....	.....	170,000	60,000	408,608	1,231,097	1,228,597	22,500	.....
New York: New York Agency.....	4,498,521	584	.....	.....	584	.....	.....	.....	4,497,937	4,462,380	.....	55,557
North Carolina: Cherokee.....	945,228	160,688	.....	.....	28,108	71,980	6,260	59,260	784,640	588,000	192,000	4,640
North Dakota.....	25,539,608	23,367,761	20,466,106	.....	303,668	620,425	261,125	1,716,413	2,171,847	1,157,794	.....	1,014,063
Fort Berthold.....	3,965,618	2,698,437	1,738,789	.....	28,169	218,425	101,125	511,935	1,367,181	1,157,794	.....	199,397
Fort Totten.....	1,466,400	1,466,400	1,232,106	.....	24,822	67,000	70,000	82,500	82,500	82,500	.....	2,020
Standing Rock.....	15,764,769	14,862,113	13,566,208	.....	169,537	187,000	50,000	930,368	812,646	812,646	.....	812,646
Turtle Mountain.....	4,410,741	4,410,741	2,990,000	.....	81,161	148,000	40,000	211,800	.....	.....	.....	.....

Oklahoma.....	285,275,321	218,173,781	200,491,157	8,862	11,433,736	3,371,460	1,239,910	1,638,836	37,101,540	14,897,575	780,000	21,423,965
Cantonment.....	954,588	854,588	750,853		213,371	95,000	63,000	45,703	1,680			1,680
Cheyenne and Arapaho.....	4,640,121	4,019,474	3,448,320		8,749,458	(*)	37,145	176,175	620,617			620,617
Five Civilized Tribes.....	192,852,250	166,691,538	157,942,330	(*)	1,072,878	870,000	415,000	176,000	26,160,412	14,880,225	780,000	10,500,157
Klamath.....	19,694,108	16,428,888	13,919,010	(*)	1,478,468	870,000	490,000	672,600	3,267,220			3,267,220
Osage.....	19,694,108	13,620,978	10,498,918		1,072,878	870,000	490,000	672,600	6,024,305			6,024,305
Ojibwa.....	2,393,623	1,970,369	1,351,531		119,190	80,340	32,000	79,948	356,456	6,480		349,976
Pawnee.....	2,393,623	2,217,187	1,904,615		143,408	104,317	9,200	55,647	178,436			178,436
Ponca.....	3,185,326	3,065,324	2,689,338		125,862	179,660	32,000	67,032	98,201	4,800		83,401
Saco and Fox.....	1,626,653	1,236,540	873,690	1,452	161,522	116,265	26,805	59,258	390,113			390,113
Seger.....	1,973,856	1,973,856	1,577,975		143,355	135,630	43,150	73,746				(*)
Seneca.....	4,332,157	4,332,157	3,832,605		103,308	157,850	43,600	168,666	6,070	6,070		
Shawnee.....	1,940,654	1,940,654	1,661,860		102,953	17,900	47,860	79,961				
Oregon.....	44,866,422	11,928,082	7,373,490	2,404,900	268,107	370,000	161,000	1,350,585	32,938,340	3,480,775	29,180,967	276,598
Klamath.....	28,941,392	2,970,391	1,270,880	540,000	50,741	133,000	38,000	937,770	25,970,991	2,160,000	23,700,000	92,991
Rooseburg.....	2,673,898	2,673,898	2,521,681	1,800,000	94,717	113,000	66,000	76,000				
Shields.....	6,931,387	6,931,387	371,590	19,000	15,566	108,000	28,000	15,326	237,001	12,800	108,000	29,201
Umatilla.....	5,442,850	5,007,244	4,500,200	8,400	97,290	108,000	30,000	282,346	435,706	240,000	21,300	154,406
Warm Springs.....	7,147,006	832,383	696,629	37,500	7,754	17,000		63,150	6,294,642	1,038,975	5,255,667	
South Dakota.....	58,381,853	50,607,555	41,462,671	59,000	2,059,792	1,448,875	847,400	4,729,847	7,774,263	2,306,138	285,584	5,232,546
Canton Asylum.....	2,088	2,088			2,088	350,000	80,000	663,750	2,606,175	1,402,700	27,759	1,175,696
Cheyenne River.....	10,711,652	8,105,477	6,864,852		116,283	115,000	55,000	328,500	108,208			108,208
Crow Creek.....	2,970,721	2,862,513	2,312,720		51,293	20,000	7,000	8,150	3,056			3,056
Flandreau.....	123,677	120,921	84,000		1,471	20,000	50,000	179,785	189,733	76,000	64,145	49,588
Lower Brule.....	2,183,168	1,963,435	1,662,770	9,000	41,880	50,000	265,000	1,862,742	1,334,888	625,438	107,800	701,650
Pine Ridge.....	16,196,287	14,861,399	12,245,900	50,000	162,757	225,000	185,000	1,320,474	2,924,312	302,000	35,850	2,586,462
Rosebud.....	14,324,122	11,399,810	8,938,779		862,557	83,000	265,000	1,158,777	395,706			395,706
Siasseton.....	7,330,012	6,943,306	6,144,180		299,974	245,375	80,400	157,669	212,190			212,190
Yankton.....	4,531,126	4,318,936	3,209,470		520,867	350,500	80,400					
Utah.....	6,912,850	2,656,292	1,720,403		337,274	98,910	58,200	450,505	4,256,558	603,920	34,875	3,617,763
Goshute.....	53,485	13,463				1,500	500	11,465	40,020	40,020		
Shilwits.....	24,185	8,693				2,600	1,700	4,385	15,500			
Uintah and Ouray.....	6,835,180	2,634,142	1,720,403		337,274	83,810	56,000	434,655	4,201,038	546,400	34,875	3,617,763

1 Data incomplete.
 2 Ponca not included.
 3 Included in Western Shoshone.
 4 Tribal timber.
 5 Not reported.
 6 Estimated.
 7 Included in value of land.
 8 Includes \$12,19,000 lowest estimated value of coal.
 9 Included in Cheyenne and Arapaho.

TABLE 37.—*Value of Indians' individual and tribal property, June 30, 1917—Continued.*

States and superintendencies.	Total Individual and tribal property.	Individual.					Tribal.					
		Total.	Lands, exclusive of timber.	Timber.	Funds in hands of superintendents. ¹	Homes, furniture, barns, etc.	Wagons, implements, etc.	Stock, poultry, and other property.	Total.	Lands, exclusive of timber.	Timber and stock.	Balance of funds in treasury.
Washington.....	44, 519, 546	29, 922, 926	22, 997, 368	4, 019, 890	1, 155, 356	451, 288	512, 604	796, 490	14, 596, 620	3, 820, 798	10, 584, 584	221, 268
Colville.....	14, 573, 882	10, 392, 968	8, 179, 320	600, 000	485, 860	184, 793	447, 400	485, 555	4, 180, 894	1, 863, 702	2, 285, 366	81, 877
Cushman.....	723, 593	629, 433	513, 664	28, 750	30, 666	22, 800	7, 040	26, 513	94, 160			94, 160
Neah Bay.....	383, 346	87, 999	17, 000	4, 000	871	32, 326	5, 949	27, 844	297, 357	22, 357	276, 000	
Spokane.....	2, 899, 048	1, 540, 352	990, 880	392, 890	45, 090	62, 000	13, 000	86, 892	1, 268, 696	421, 845	850, 375	26, 476
Taholah.....	7, 234, 254	1, 370, 766	350, 892	833, 377	2, 117	41, 660	10, 000	12, 759	5, 803, 459	1, 512, 894	4, 345, 359	5, 226
Tulalip.....	4, 506, 339	4, 506, 339	2, 442, 626	1, 496, 023	335, 748	107, 780	28, 715	65, 477				
Yakima.....	14, 267, 984	11, 365, 030	10, 502, 986	545, 130	245, 004	(?)	(?)	101, 910	2, 862, 054		2, 878, 475	13, 579
Wisconsin.....	20, 094, 268	7, 430, 238	3, 247, 374	172, 297	2, 346, 245	845, 300	293, 890	525, 092	12, 664, 030	3, 746, 124	6, 396, 537	2, 517, 369
Grand Rapids.....	796, 248	337, 940	60, 000		69, 051	100, 000	25, 000	83, 889	458, 308	277, 200	3, 400	177, 708
Hayward.....	792, 832	731, 566	694, 500	75, 000	69, 259	29, 000	3, 760	20, 000	1, 013	1, 000	13	
Keshena.....	11, 778, 498	344, 130			165, 068	54, 500	11, 000	110, 564	11, 434, 368	8, 063, 346	6, 009, 367	2, 339, 661
Lac du Flambeau.....	864, 519	738, 894	353, 994	29, 297	57, 108	216, 000	31, 200	21, 265	125, 925	102, 089	23, 886	
Lacota.....	271, 537	72, 257			35, 377	12, 800	2, 300	21, 780	196, 280	199, 280		
La Poudre.....	2, 278, 167	2, 833, 031	800, 767	28, 000	1, 526, 434	315, 000	65, 000	97, 890	445, 136	83, 215	361, 921	
Oneida.....	2, 029, 493	2, 029, 493	1, 312, 043		360, 000	56, 000	152, 680	158, 680				
Red Cliff.....	283, 014	283, 014	126, 070	40, 000	40, 950	62, 000	3, 000	10, 994				
Wyoming: Shoshone.....	4, 093, 622	2, 164, 494	1, 610, 249		73, 677	23, 000	40, 000	417, 568	1, 929, 128	829, 000	1, 044, 683	53, 443

¹ No data.¹ Data incomplete.

TABLE 38.—*School and agency employees in Indian Service, based on salary list in effect June 30, 1917.*

States and superintendencies.	Total.				Male.		Female.	
	Em- ployees.	Indi- ans.	Non- Indi- ans.	Salaries.	Num- ber.	Salary.	Num- ber.	Salary.
Grand total.....	5,334	2,137	3,197	\$3,589,887	3,481	\$2,530,122	1,853	\$1,059,765
Total schools.....	2,817	781	2,036	1,919,313	1,264	1,070,608	1,553	848,705
Total agencies.....	2,517	1,356	1,161	1,670,574	2,217	1,459,514	300	211,060
Arizona.....	708	321	387	450,953	452	308,073	256	142,880
Camp Verde schools.....	4	.....	4	3,140	3	2,840	1	300
Camp Verde Agency.....	5	4	1	2,090	4	1,490	1	600
Colorado River School.....	13	6	7	8,550	5	4,320	8	4,230
Colorado River Agency.....	22	15	7	14,415	19	11,775	3	2,640
Fort Apache schools.....	30	10	20	19,115	17	12,835	13	6,290
Fort Apache Agency.....	42	26	16	26,290	39	23,700	3	1,590
Fort Mojave schools.....	16	5	11	10,680	6	5,220	10	5,460
Havasupai School.....	3	1	2	2,220	2	1,920	1	300
Havasupai Agency.....	2	1	1	1,400	2	1,400	.....	.....
Kaibab School.....	3	.....	3	2,320	1	1,300	2	1,020
Kaibab Agency.....	2	2	.....	780	2	780	.....	.....
Leupp School.....	12	5	7	8,520	4	3,900	8	4,620
Leupp Agency.....	16	12	4	8,730	16	8,730	.....	.....
Moqui schools.....	39	15	24	21,290	15	11,300	24	9,990
Moqui Agency.....	34	16	18	20,392	28	16,582	6	3,810
Navajo schools.....	68	30	38	43,220	28	20,940	40	22,280
Navajo Agency.....	47	32	15	26,385	42	23,045	5	3,340
Phoenix School.....	73	16	57	54,740	33	28,070	40	26,670
Pima schools.....	43	12	31	27,830	19	16,700	24	11,130
Pima Agency.....	41	26	15	27,875	33	22,575	8	5,300
Rice Station School.....	23	10	13	15,940	11	7,900	12	8,040
Salt River schools.....	6	1	5	4,335	3	3,135	3	1,200
Salt River Agency.....	12	9	3	6,290	11	5,690	1	600
San Carlos schools.....	10	4	6	7,690	3	4,030	7	3,660
San Carlos Agency.....	51	33	18	30,223	48	28,423	3	1,800
San Xavier schools.....	10	1	9	7,220	4	4,460	6	2,760
San Xavier Agency.....	19	11	8	10,330	16	8,710	3	1,620
Truxton Canon School.....	14	3	11	9,510	4	3,960	10	5,550
Truxton Canon Agency.....	5	.....	5	3,120	2	2,520	1	600
Western Navajo schools.....	23	5	18	15,880	10	8,380	13	7,500
Western Navajo Agency.....	20	10	10	11,443	20	11,443	.....	.....
California.....	303	98	205	186,107	188	122,732	115	63,375
Bishop schools.....	10	2	8	6,195	4	3,555	6	2,640
Bishop Agency.....	6	5	1	2,760	5	2,160	1	600
Campo School.....	5	2	3	3,430	2	1,890	3	1,550
Campo Agency.....	2	2	.....	960	2	960	.....	.....
Digger Agency.....	2	.....	2	1,720	1	1,000	1	720
Fort Bidwell schools.....	20	.....	20	12,455	9	6,680	11	5,775
Fort Bidwell Agency.....	7	2	5	4,340	7	4,340	.....	.....
Fort Yuma schools.....	21	6	15	14,100	9	7,150	12	6,950
Fort Yuma Agency.....	10	6	4	5,512	8	4,192	2	1,320
Greenville School.....	14	1	13	9,940	7	5,980	7	3,960
Hoopa Valley School.....	19	11	8	12,190	6	5,370	13	6,820
Hoopa Valley Agency.....	17	8	9	8,873	17	8,873	.....	.....
Maliki School.....	1	.....	1	1,490	1	1,400	.....	.....
Maliki Agency.....	16	8	3	6,045	14	4,865	2	1,180
Pala schools.....	9	2	7	5,710	4	3,610	5	2,100
Pala Agency.....	15	10	5	7,733	14	7,013	1	720
Round Valley schools.....	8	.....	8	6,140	4	4,220	4	1,920
Round Valley Agency.....	16	6	10	8,805	14	7,125	2	1,680
Sherman Institute.....	63	9	54	46,220	29	25,310	34	20,910
Soboba schools.....	9	2	7	5,910	3	3,240	6	2,670
Soboba Agency.....	22	15	7	9,640	22	9,640	.....	.....
Tule River schools.....	7	.....	7	4,000	3	2,440	4	1,560
Tule River Agency.....	4	1	3	2,029	3	1,729	1	300
Colorado.....	47	16	31	32,440	35	26,350	12	6,090
Southern Ute schools.....	11	2	9	8,230	5	5,350	6	2,880
Southern Ute Agency.....	17	7	10	10,270	15	9,370	2	900
Ute Mountain School.....	3	.....	3	2,740	1	1,750	2	990
Ute Mountain Agency.....	16	7	9	11,200	14	9,880	2	1,320
Idaho.....	107	34	73	74,104	79	57,524	28	16,580
Coeur d'Alene schools.....	5	.....	5	3,540	3	2,940	2	600
Coeur d'Alene Agency.....	18	7	11	12,754	16	11,434	2	1,320
Fort Hall schools.....	23	5	15	14,480	12	9,800	2	4,680

TABLE 38.—*School and agency employees in Indian Service, based on salary list in effect June 30, 1917—Continued.*

States and superintendencies.	Total.				Male.		Female.	
	Em- ployees.	Indi- ans.	Non- Indi- ans.	Salaries.	Num- ber.	Salary.	Num- ber.	Salary.
Idaho—Continued.								
Fort Hall Agency.....	23	14	9	\$14,808	22	\$13,808	1	\$1,000
Fort Lapwal School.....	28	3	25	17,040	13	8,060	15	8,980
Fort Lapwal Agency.....	13	5	8	11,482	13	11,482	.....	.....
Iowa.....	24	12	12	15,650	10	8,270	14	7,380
Sac and Fox Sanatorium...	21	10	11	13,950	7	6,570	14	7,380
Sac and Fox Agency.....	8	2	1	1,700	3	1,700	.....	.....
Kansas.....	89	19	70	68,152	48	40,612	41	27,540
Haskell Institute.....	66	6	60	52,320	33	29,340	33	22,980
Kickapoo School.....	13	8	5	8,290	6	4,450	7	3,840
Kickapoo Agency.....	2	2	.....	1,697	2	1,697	.....	.....
Potawatomi School.....	1	.....	1	1,500	1	1,500	.....	.....
Potawatomi Agency.....	7	3	4	4,345	6	3,625	1	720
Michigan.....	41	14	27	28,910	18	14,980	23	13,930
Mount Pleasant School.....	37	13	24	25,110	15	11,900	22	13,210
Mackinac Agency.....	4	1	3	3,800	3	3,080	1	720
Minnesota.....	267	137	130	173,828	177	125,968	90	47,860
Cass Lake School.....	6	5	1	3,340	2	1,600	4	1,740
Fond du Lac schools.....	5	1	4	3,440	3	2,840	2	600
Fond du Lac Agency.....	16	9	7	10,885	11	8,225	5	2,660
Grand Portage School.....	3	.....	3	2,270	1	1,200	2	1,070
Grand Portage Agency.....	5	3	2	2,620	4	2,220	1	400
Leech Lake schools.....	13	4	9	9,120	5	4,680	8	4,440
Leech Lake Agency.....	39	23	16	27,398	37	26,108	2	1,290
Nett Lake School.....	3	1	2	2,220	1	1,200	2	1,020
Nett Lake Agency.....	10	8	2	6,192	9	5,592	1	600
Pipestone schools.....	26	12	14	17,410	14	10,550	12	6,860
Red Lake schools.....	21	9	12	12,240	10	6,690	11	5,550
Red Lake Agency.....	32	23	9	19,873	26	16,573	6	3,300
Vermillion Lake School.....	14	8	6	8,980	5	3,990	9	5,000
White Earth schools.....	36	11	25	23,670	15	13,030	21	10,640
White Earth Agency.....	38	20	18	24,180	34	21,480	4	2,700
Montana.....	350	166	184	230,255	284	193,230	66	37,025
Blackfeet schools.....	20	6	14	13,040	8	7,020	12	6,020
Blackfeet Agency.....	52	29	23	31,125	48	28,905	4	2,220
Crow schools.....	24	5	19	17,360	13	10,960	11	6,500
Crow Agency.....	65	34	31	40,253	61	37,433	4	2,820
Flathead School.....	2	.....	2	3,200	2	3,200	.....	.....
Flathead Agency.....	33	14	19	24,633	32	23,913	1	720
Fort Belknap schools.....	11	2	9	8,185	4	4,300	7	3,885
Fort Belknap Agency.....	31	16	15	19,913	30	19,193	1	720
Fort Peck schools.....	20	9	11	13,380	8	7,340	12	6,040
Fort Peck Agency.....	34	19	15	20,833	33	19,933	1	900
Tongue River schools.....	19	7	12	12,750	9	7,710	10	5,040
Tongue River Agency.....	39	26	14	26,583	36	23,423	3	2,160
Nebraska.....	84	31	53	61,900	56	44,530	28	17,370
Genoa School.....	42	12	30	28,930	23	17,460	19	11,470
Omaha School.....	1	.....	1	1,600	1	1,600	.....	.....
Omaha Agency.....	8	4	4	5,987	7	5,297	1	600
Santee School.....	1	.....	1	1,700	1	1,700	.....	.....
Santee Agency.....	9	7	2	6,325	9	6,325	.....	.....
Winnebago School.....	2	.....	2	2,800	2	2,800	.....	.....
Winnebago Agency.....	21	8	13	14,648	13	9,348	8	5,300
Nevada.....	118	49	69	77,258	69	50,303	49	26,955
Carson School.....	32	12	20	25,550	10	12,940	22	12,610
Fallon schools.....	9	.....	9	5,265	5	3,320	4	1,945
Fallon Agency.....	3	2	1	1,370	3	1,370	.....	.....
Fort McDermitt School.....	7	3	4	4,685	4	3,185	3	1,500
Fort McDermitt Agency.....	2	2	.....	624	2	624	.....	.....
Moapa River School.....	4	.....	4	3,180	1	1,500	3	1,680
Moapa River Agency.....	3	3	.....	552	3	552	.....	.....
Nevada schools.....	10	4	6	6,120	2	1,900	8	4,220

TABLE 38.—*School and agency employees in Indian Service, based on salary list in effect June 30, 1917—Continued.*

States and superintendencies.	Total.				Male.		Female.	
	Em- ployees.	Indi- ans.	Non- Indi- ans.	Salaries.	Num- ber.	Salary.	Num- ber.	Salary.
Nevada—Continued.								
Nevada Agency.....	11	8	3	\$6,089	9	\$4,769	2	\$1,320
Walker River School.....	4	.....	4	3,220	2	2,120	2	1,100
Walker River Agency.....	11	5	6	6,734	10	6,074	1	660
Western Shoshone school.....	8	1	7	5,520	6	4,920	2	600
Western Shoshone Agency.....	14	9	5	8,349	12	7,029	2	1,320
New Mexico.....	425	187	238	267,980	265	178,435	160	89,545
Albuquerque School.....	44	14	30	31,110	22	17,280	22	13,830
Jicarilla School.....	16	5	11	10,800	6	5,200	10	5,600
Jicarilla Agency.....	51	24	27	28,330	50	27,610	1	720
Mescalero School.....	10	3	7	7,140	3	3,180	7	3,960
Mescalero Agency.....	33	17	16	20,820	29	18,460	4	2,360
Pueblo Bonito schools.....	24	6	18	15,100	7	6,520	17	8,580
Pueblo Bonito Agency.....	17	9	8	11,350	17	11,350	.....	.....
Pueblo day schools.....	50	14	36	29,805	14	11,860	36	17,945
Pueblo day schools agency.....	40	25	15	27,722	29	20,762	11	6,960
San Juan schools.....	26	8	18	17,310	11	9,120	15	8,190
San Juan Agency.....	41	31	10	20,598	40	19,878	1	720
Santa Fe School.....	40	18	22	26,370	19	14,270	21	12,100
Zuni schools.....	21	7	14	12,940	3	5,800	13	7,140
Zuni Agency.....	12	6	6	8,585	10	7,145	2	1,440
New York Agency.....	3	.....	3	2,250	2	1,650	1	600
North Carolina.....	35	13	22	21,587	21	12,787	14	8,800
Cherokee schools.....	29	10	19	17,610	16	9,530	13	8,090
Cherokee Agency.....	6	3	3	3,977	5	3,267	1	720
North Dakota.....	278	145	133	161,346	175	108,686	103	52,660
Bismarck School.....	13	5	8	8,400	5	3,800	8	4,600
Fort Berthold schools.....	7	1	6	5,120	3	3,470	4	1,650
Fort Berthold Agency.....	32	21	11	17,925	30	16,065	2	1,860
Fort Totten schools.....	44	19	25	26,290	17	12,260	27	14,030
Fort Totten Agency.....	12	7	5	7,620	11	6,960	1	660
Standing Rock schools.....	46	15	31	28,855	17	14,835	29	14,020
Standing Rock Agency.....	67	49	18	33,063	56	27,343	11	5,720
Turtle Mountain schools.....	11	1	10	6,825	6	5,325	5	1,500
Turtle Mountain Agency.....	22	18	4	10,728	19	9,568	3	1,160
Wahpeton School.....	24	9	15	16,520	11	9,060	13	7,460
Oklahoma.....	926	275	651	747,184	580	527,149	346	220,035
Cantonment School.....	11	4	7	7,020	4	3,300	7	3,720
Cantonment Agency.....	12	3	9	8,760	10	7,140	2	1,620
Cheyenne and Arapaho School.....	17	8	9	11,300	7	5,400	10	5,900
Cheyenne and Arapaho Agency.....	21	8	13	15,322	16	12,122	5	3,200
Chilocco School.....	55	17	38	40,300	31	25,000	24	15,300
Kiowa schools.....	72	14	58	45,100	33	24,660	39	20,440
Kiowa Agency.....	62	32	30	38,650	48	30,790	14	7,860
Osage School.....	28	7	21	19,940	7	10,740	21	9,200
Osage Agency.....	39	8	31	48,830	23	42,980	6	5,900
Otoe School.....	12	1	11	8,020	6	4,740	6	3,280
Otoe Agency.....	7	2	5	4,960	6	4,140	1	720
Pawnee School.....	16	5	11	11,180	6	5,400	10	5,780
Pawnee Agency.....	10	4	6	7,325	8	5,705	2	1,620
Ponca School.....	16	5	11	10,080	7	6,220	9	3,870
Ponca Agency.....	10	3	7	8,167	9	7,567	1	600
Red Moon School.....	5	1	4	1,900	3	1,300	2	600
Sac and Fox School.....	1	.....	1	1,650	1	1,650	.....	.....
Sac and Fox Agency.....	12	6	6	8,565	10	7,005	2	1,560
Seger School.....	18	3	15	11,200	7	5,180	11	6,020
Seger Agency.....	11	5	6	6,995	8	5,675	3	1,320
Seneca School.....	16	5	11	11,180	8	6,420	8	4,770
Seneca Agency.....	5	3	2	3,060	4	2,340	1	720
Shawnee School.....	19	8	11	12,280	10	7,520	9	4,760
Shawnee Agency.....	8	5	3	4,955	7	4,355	1	600

TABLE 38.—*School and agency employees in Indian Service, based on salary list in effect June 30, 1917—Continued.*

States and superintendencies.	Total.			Male.		Female.		
	Em- ployees.	Indi- ans.	Non- Indi- ans.	Salaries.	Num- ber.	Salary.	Num- ber.	Salary.
Oklahoma—Continued. Five Civilized Tribes.....	443	118	325	\$400,545	291	\$289,850	152	\$110,695
Muskogee Agency.....	283	98	185	292,712	230	241,762	53	50,950
Schools—supervisor.....	12	4	8	13,050	8	8,610	4	4,440
Armstrong Academy.....	16	4	12	10,420	7	5,470	9	4,950
Bloomfield Seminary.....	1	.....	1	1,500	1	1,500	.....	.....
Cherokee Training.....	15	4	11	9,700	5	3,670	10	6,030
Collins Institute.....	12	.....	12	7,560	7	4,620	5	2,940
Euclaw Boarding.....	14	.....	14	9,235	5	4,133	9	5,102
Eufaula Boarding.....	14	.....	14	8,580	2	960	12	7,620
Jones Academy.....	14	3	11	9,720	7	5,700	7	4,020
Makuskey Academy.....	16	.....	16	9,840	6	4,275	10	5,565
Nuyaka Boarding.....	15	3	12	9,375	6	4,530	9	4,845
Tuskahoma Academy.....	15	.....	15	9,270	4	3,120	11	6,150
Wheelock Academy.....	16	2	14	9,525	3	1,500	13	8,025
Oregon.....	183	66	117	134,335	116	93,775	67	40,560
Klamath schools.....	24	4	20	15,530	11	9,060	13	6,470
Klamath Agency.....	32	11	21	27,048	27	22,048	5	4,000
Roseburg School.....	1	.....	1	1,600	1	1,600	.....	.....
Roseburg Agency.....	6	.....	6	6,500	4	5,200	2	1,300
Salem schools.....	53	14	39	39,910	27	23,660	26	16,250
Siletz schools.....	2	1	1	2,270	2	2,270	.....	.....
Siletz Agency.....	7	5	2	4,125	6	3,405	1	720
Umatilla School.....	13	6	7	8,960	5	4,320	8	4,640
Umatilla Agency.....	10	6	4	5,669	8	3,929	2	1,740
Normal Springs schools.....	15	6	9	9,720	7	5,720	8	4,000
Warm Springs Agency.....	20	13	7	13,003	18	11,563	2	1,440
Pennsylvania: Carlisle School.....	67	7	60	51,430	37	30,530	30	20,900
South Dakota.....	687	305	382	392,774	450	273,354	228	119,420
Canton Asylum.....	25	.....	25	15,360	12	9,380	13	5,980
Cheyenne River schools.....	26	5	21	17,880	12	10,630	14	7,250
Cheyenne River Agency.....	58	39	19	18,843	54	16,923	4	1,920
Crow Creek School.....	13	4	9	9,170	6	5,290	7	3,880
Crow Creek Agency.....	30	16	14	18,101	24	13,961	6	4,140
Flandreau School.....	41	19	22	28,140	16	13,900	25	14,240
Lower Brule School.....	12	3	9	8,220	5	4,440	7	3,780
Lower Brule Agency.....	19	9	10	11,789	18	10,839	1	900
Pierre School.....	25	5	20	17,250	11	9,420	14	7,830
Pine Ridge schools.....	90	17	73	54,540	43	34,320	47	20,220
Pine Ridge Agency.....	99	79	20	46,191	95	43,091	4	3,100
Rapid City School.....	33	11	22	21,730	16	12,090	17	9,640
Rosebud schools.....	68	9	59	46,850	35	31,670	33	15,180
Rosebud Agency.....	79	53	26	33,480	68	26,480	11	7,000
Sisseton School.....	18	11	7	11,990	9	7,180	9	4,810
Sisseton Agency.....	11	9	2	6,430	10	5,650	1	780
Springfield School.....	8	2	6	5,420	2	1,500	6	3,920
Yankton School.....	15	9	6	10,060	7	5,940	8	4,120
Yankton Agency.....	17	5	12	11,330	16	10,610	1	720
Utah.....	61	26	35	42,681	51	37,801	10	4,880
Goshute School.....	2	.....	2	1,300	1	1,000	1	300
Goshute Agency.....	3	1	2	1,610	2	1,310	1	300
Shivwits School.....	8	.....	8	2,220	2	1,920	1	300
Shivwits Agency.....	3	2	1	824	3	824	.....	.....
Uintah and Ouray School.....	12	5	7	9,330	6	6,070	6	3,260
Uintah and Ouray Agency.....	38	18	20	27,397	37	26,677	1	720
Washington.....	244	87	157	173,581	178	135,721	66	37,860
Colville schools.....	15	3	12	10,600	9	8,390	6	2,300
Colville Agency.....	37	12	25	27,563	35	25,943	2	1,620
Cushman schools.....	36	8	28	27,260	20	18,040	16	9,220
Cushman Agency.....	7	3	4	4,860	6	3,060	1	1,200
Neah Bay schools.....	7	2	5	4,820	5	3,580	2	1,200
Neah Bay Agency.....	4	3	1	1,800	3	1,200	1	600

¹ No school; paid from school appropriation.

TABLE 38.—*School and agency employees in Indian Service, based on salary list in effect June 30, 1917—Continued.*

State and superintendencies.	Total.				Male.		Female.	
	Em- ployees.	Indi- ans.	Non- Indi- ans.	Salaries.	Num- ber.	Salary.	Num- ber.	Salary.
Washington—Continued.								
Spokane schools.....	7	2	5	\$4,620	4	\$3,720	3	\$900
Spokane Agency.....	23	9	14	13,383	18	11,003	5	2,380
Tabolah schools.....	3	.....	3	3,280	3	3,280	.....	.....
Tabolah Agency.....	10	5	5	7,059	10	7,059	.....	.....
Tulalip schools.....	29	9	20	20,470	14	11,540	15	8,930
Tulalip Agency.....	20	8	12	13,625	19	13,025	1	600
Yakima School.....	18	10	8	13,050	8	7,410	10	5,640
Yakima Agency.....	28	13	15	21,101	24	17,921	4	3,180
Wisconsin.....	222	101	121	148,222	128	97,382	94	50,840
Grand Rapids School ¹	1	.....	1	1,600	1	1,600	.....	.....
Grand Rapids Agency.....	4	.....	4	3,140	3	2,540	1	600
Hayward schools.....	24	7	17	15,350	10	7,340	14	8,010
Hayward Agency.....	8	5	3	4,025	7	3,365	1	660
Keshena schools.....	21	7	14	16,175	9	9,940	12	6,235
Keshena Agency.....	35	26	9	20,798	28	17,038	7	3,760
Lac du Flambeau School.....	18	7	11	12,280	9	7,420	9	4,860
Lac du Flambeau Agency.....	7	4	3	4,424	5	3,044	2	1,380
Leona School.....	1	.....	1	1,600	1	1,600	.....	.....
Leona Agency.....	4	1	3	3,520	4	3,520	.....	.....
La Pointe School.....	1	.....	1	2,750	1	2,750	.....	.....
La Pointe Agency.....	14	5	9	11,295	14	11,295	.....	.....
Oneda School.....	24	15	9	13,830	10	7,060	14	6,740
Red Cliff School.....	3	.....	3	2,375	1	1,400	2	975
Red Cliff Agency.....	8	5	3	4,960	7	4,260	1	720
Tomah School.....	30	8	22	19,170	11	8,600	19	10,570
Wittenberg School.....	19	11	8	10,910	7	4,580	12	6,330
Wyoming.....	65	28	37	46,960	53	40,280	12	6,680
Shoshone School.....	19	3	16	14,760	10	10,000	9	4,760
Shoshone Agency.....	46	25	21	32,200	43	30,280	3	1,920

¹ No school; paid from school appropriation.TABLE 39.—*Miscellaneous field employees, June 30, 1917.*

Designation.	Total.		Chief officer.		Others.	
	Num- ber.	Salary.	Num- ber.	Salary.	Num- ber.	Salary.
<i>Field investigating and supervising force.</i>						
Total.....	122	\$189,700	20	\$43,850	102	\$145,850
Inspection.....	7	17,000	1	3,500	6	13,500
Special supervisors.....	4	7,800	1	2,500	3	5,300
Liquor.....	24	32,190	1	2,000	23	30,190
Construction.....	9	16,650	1	2,750	8	13,900
Health.....	25	35,920	1	3,000	24	32,920
Schools.....	8	17,300	1	3,000	7	14,300
Industries:						
Farming.....	1	3,000	1	3,000	.....	.....
Employment.....	3	3,700	1	2,000	2	1,700
Live stock.....	1	(¹)	1	(¹)	.....	.....
Forestry:						
Field supervising officers.....	7	13,550	1	3,000	6	10,550
Menominee.....	21	21,970	1	1,600	20	20,370
Special agents.....	10	17,120	7	14,000	3	3,120
Commissioner to negotiate with Seminole In- dians.....	1	2,000	1	2,000	.....	.....
Attorney for Pueblo Indians.....	1	1,500	1	1,500	.....	.....

¹ \$10 a day when actually employed.

TABLE 39.—*Miscellaneous field employees, June 30, 1917—Continued.*

Designation.	Total.		Chief officer.		Others.	
	Num- ber.	Salary.	Num- ber.	Salary.	Num- ber.	Salary.
<i>Field irrigation service.</i>						
Total.....	232	\$293,930	14	\$27,700	218	\$266,230
Chief Inspector.....	1	4,000	1	4,000		
Superintendents of irrigation.....	8	18,500	1	2,500	7	16,000
Arizona.....	5	4,500	2	2,700	3	1,800
Pima.....	4	3,300	1	1,500	3	1,800
Salt River.....	1	1,200	1	1,200		
California: Miscellaneous work.....	174	71,400	2	4,000	172	67,400
Idaho: Fort Hall.....	14	12,445	1	1,600	13	10,845
Montana.....	15	18,805	2	3,000	13	15,805
Billings.....	1	1,500			1	1,500
Crow.....	8	9,580	1	1,500	7	8,080
Fort Belknap.....	5	7,425	1	1,500	4	5,925
Tongue River.....	1	300			1	300
New Mexico: Albuquerque.....	20	29,850	1	2,000	19	27,850
Utah.....	56	62,250	2	3,800	54	58,450
Salt Lake.....	117	30,300	1	1,800	116	28,500
Uintah.....	19	25,950	1	2,000	18	23,950
Washington: Yakima.....	143	55,100	1	2,100	142	53,000
Wyoming: Shoshone.....	16	17,080	1	2,000	15	15,080
<i>Field allotment service.</i>						
Total.....	16	13,935	2	1,080	14	12,855
Special allotting agent.....	1	(²)	1	(²)		
Arizona.....	3	2,700			3	2,700
Leupp.....	1	720			1	720
Pima.....	2	1,980			2	1,980
Montana: Blackfeet.....	1	765			1	765
North Dakota: Turtle Mountain.....	1	900			1	900
Oregon: Umatilla.....	3	2,670			3	2,670
South Dakota.....	4	3,720			4	3,720
Pine Ridge.....	2	2,100			2	2,100
Rosebud.....	2	1,620			2	1,620
Wisconsin: La Pointe.....	3	3,180	1	1,080	2	2,100
<i>Herbship work.</i>						
Examiners.....	54	59,400	18	32,400	36	27,000
<i>Probate work.</i>						
Attorneys.....	20	50,000	20	50,000		
<i>Warehouses.</i>						
Total.....	35	35,640	8	6,200	32	29,440
Chicago.....	21	21,450	1	2,200	20	19,250
San Francisco.....	6	6,170	1	2,000	5	4,170
St. Louis.....	8	8,020	1	2,000	7	6,020

¹ Temporary or for emergency.² \$3 a day when actually employed.

TABLE 40.—Recapitulation of all Indian Service employees.

Designation.	Number.	Salaries.
Total.....	6, 075	4, 570, 742
School.....	¹ 2, 817	1, 919, 313
Agency.....	¹ 2, 517	1, 670, 574
Field investigating and supervising force.....	122	189, 700
Irrigation service.....	232	293, 930
Allotment service.....	16	13, 935
Hairship work.....	54	59, 400
Probate work.....	20	50, 000
Warehouses.....	35	35, 640
Indian Office employees, exclusive of commissioner and assistant commissioner.....	262	338, 260

¹ School and agency includes 2,137 Indians earning \$979,783.

TABLE 41.—Commissioner's account for fiscal year ended June 30, 1917.

[Checks, drafts, and other instruments of exchange, drawn to the order of the commissioner, are received in the office as deposits with bids for tribal leasing privileges, guaranties for right of way across Indian lands, and for various other purposes. For such receipts the commissioner renders monthly accounts as required by sec. 3622, Rev. Stats.]

On hand July 1, 1916.....		\$7, 684. 42
Received:		
July, 1916.....	\$882, 670. 19	
August, 1916.....	74. 85	
September, 1916.....	100. 63	
October, 1916.....	59. 51	
November, 1916.....	13. 07	
December, 1916.....	11. 49	
January, 1917.....	196. 01	
February, 1917.....	57, 297. 21	
March, 1917.....	50, 648. 33	
April, 1917.....	21, 730. 91	
May, 1917.....	15, 065. 33	
June, 1917.....	22, 851. 99	
		1, 060, 710. 52
Total on hand and received.....		1, 068, 374. 94
Disbursed and deposited:		
July, 1916.....	\$881, 845. 00	
August, 1916.....	61. 96	
September, 1916.....	16. 26	
October, 1916.....	4, 072. 77	
November, 1916.....	11. 49	
December, 1916.....	4. 01	
January, 1917.....	265. 36	
February, 1917.....	26. 20	
March, 1917.....	17, 398. 06	
April, 1917.....	130. 87	
May, 1917.....	99. 30	
June, 1917.....		903, 928. 28
Balance on hand June 30, 1917.....		154, 446. 66

TABLE 42.—Receipts and disbursements on account of sales of Indian lands from July 1, 1916, to June 30, 1917.

Title of fund.	Date of acts or treaties.	Statutes at Large.		On hand July 1, 1916.	Received.	Disbursed.	On hand June 30, 1917.
		Vol.	Page.				
Apache, Kiowa, and Comanche 4 per cent fund.	Mar. 27, 1908	35	49	\$2,572,100.02	\$38,930.84	\$249,604.77	\$2,362,435.09
	June 5, 1906	34	213				
	June 24, 1906	34	333	160,792.23	32,013.10		192,805.33
Cheyenne and Arapaho in Oklahoma 3 per cent fund.	June 17, 1910	36	360				
	Jan. 14, 1889	25	647				
	Feb. 27, 1896	25	467	6,277,587.96	1,087,063.71	1,709,104.44	5,605,547.23
Chippewa in Minnesota fund ¹	June 20, 1906	32	460				
	May 20, 1906	32	460				
	June 20, 1906	32	460	742,362.49	322,650.20	110,184.04	965,883.65
Cheyenne River Reservation 3 per cent fund.	June 27, 1910	34	335	187,689.51	23,624.23	20,997.26	190,316.48
Coeur d'Alene 3 per cent fund.	June 27, 1910	34	335	896,419.80	189,000.88	871,593.01	183,857.67
Fort Berthold Reservation 3 per cent fund.	July 1, 1910	36	458	96,377.17		7,435.96	88,901.18
Kansas Consolidated fund.	July 1, 1912	38	92	51,658.64	40,412.03	12,380.70	79,660.17
Kiowa Agency Hospital 4 per cent fund.	June 30, 1913	38	92				
	June 15, 1872	16	362				
	May 19, 1870	17	90	5,068,227.86	46,380.93	130,066.89	4,999,511.00
	June 16, 1880	21	232				
	Aug. 19, 1880	26	344				
Pine Ridge Reservation 3 per cent fund.	May 27, 1910	36	443	114,912.33	3,968.85		117,880.51
Puyallup 4 per cent school fund.	Mar. 3, 1893	27	633	92,468.74		7,003.89	85,464.85
Rosebud Reservation 3 per cent fund.	May 30, 1910	36	451	411,186.24	24,843.85	12.00	446,018.01
Round Valley general fund.	Oct. 1, 1890	26	658				
	Mar. 3, 1891	26	1006	1,354.80	42,408.68	42,963.27	865.21
	July 3, 1882	22	149				
	Sept. 1, 1883	22	455	7,221.83	10.00		7,231.83
Shoshone and Bannock fund.	May 20, 1906	35	460				
	Feb. 14, 1913	33	343	261,788.44	270,675.29	170,565.96	361,898.75
Standing Rock Reservation 3 per cent fund.	Mar. 3, 1895	23	343	140,116.01	2,623.84	10,366.82	132,340.03
Umatilla general fund.	Mar. 3, 1895	23	343	2,928,988.96	42,741.54	308,026.04	2,668,705.46
Proceeds of—							
Colville Reservation, Wash.	Mar. 22, 1906	33	353				
Crow ceded lands, Mont.	Apr. 27, 1904	33	319	967,326.97	38,765.88	377.53	968,378.30
Devils Lake Reservation, N. Dak.	do.	33	319	4,573.47	357,982.27	727,096.64	238,293.60
Flathead Reservation, Mont.	Apr. 22, 1904	33	305	263,430.84	1,188.70	4,328.23	1,443.94
Fort Peck Reservation, Mont.	May 30, 1906	35	564	303,890.31	57,820.74	63,918.82	267,831.76
Irrigable land, Yuma Reservation, Cal.	Apr. 21, 1904	33	224	772.46	228,706.63	582,598.94	
Lower Brule Reservation, S. Dak.	Apr. 21, 1906	34	124	7,812.90	2,161.82		
Omaha Reservation, Neb.	Apr. 15, 1898	25	150	12,883.37	212.00		
Red Lake Reservation, Minn.	Feb. 20, 1904	33	30	1,373.66	1,373.66		
	Apr. 22, 1904	33	253	947,022.91	14,265.26	114,994.37	246,394.80
Rosebud Reservation, S. Dak.	Mar. 2, 1907	34	1280	707,936.55	22,798.86	371,512.82	359,222.59

Siletz Reservation, Oreg.....	May 13, 1910	36	10,917.96	5,334.74	3,798.03	12,486.67
Southern Ute Reservation, Colo.....	Feb. 20, 1906	25	152,003.33	2,155.78	80.00	154,081.11
Spokane Reservation, Wash.....	May 29, 1906	35	23,692.81	1,938.71	2,000.00	25,631.52
Surplus Potawatomi lands, Kans.....	Feb. 28, 1899	30	23,595.95	4,753.32	.....	28,349.27
Surplus Puyublip school lands.....	June 21, 1906	34	13,497.44	603.18	6,896.00	7,251.62
Town lots, White Earth Reservation, Minn.....	Mar. 1, 1907	34	9,400.79	15.00	.....	9,415.79
Town sites, Spokane Reservation, Wash.....	June 21, 1906	34	.....	1,027.50	.....	1,027.50
Utah and White River Ute lands.....	May 27, 1902	253	150,207.75	29,598.73	37,133.18	142,673.30
Wahita ceded lands.....	Mar. 2, 1905	1069	.....	.....	.....	11,680.67
Wind River Reservation, Wyo.....	Mar. 2, 1905	33	10,438.24	1,214.43	.....	24,621.44
Indian moneys, proceeds of labor, Cherokee, unallotted lands.....	Mar. 2, 1905	1016	23,062.10	8,397.97	6,868.63	15.00
Chickasaw, town lots.....	Mar. 2, 1906	34	19,783.14	15.00	19,783.14	282.07
Chickasaw, unallotted lands.....	Mar. 2, 1907	22	18,985.93	377.07	19,090.98	1,106,794.83
Choctaw, unallotted lands.....	Apr. 28, 1906	34	663,647.49	1,145,787.14	708,698.80	3,312,696.89
Choctaw, town lots.....	Apr. 28, 1911	34	3,394,519.07	3,592,134.44	3,574,018.62	67,342.41
Choctaw, town lots.....	Mar. 3, 1883	22	66,518.84	1,108.57	285.00	171,032.58
Creek, town lots.....	Mar. 2, 1887	24	113,292.18	67,961.76	10,201.35	90,752.01
Creek, unallotted lands.....	Mar. 3, 1887	24	37,368.31	83,363.70	.....	12,432.03
Seminole, unallotted lands.....	Apr. 26, 1906	34	3,494.37	12,673.66	3,760.00	24,887,555.93
Total.....	.....	.....	27,019,459.24	17,723,232.02	9,855,133.33	.....

* \$47,630 refunded by Oklahoma banks.
 * \$12,050 refunded by Oklahoma banks.
 * Total refunded by Oklahoma banks, \$896,479.59.

† Proceeds of Indian land and timber.
 * \$143,885.45 refunded by Oklahoma banks.
 * \$549,144.14 refunded by Oklahoma banks.
 * \$23,750 refunded by Oklahoma banks.

TABLE 43.—*Liabilities of the United States to Indian tribes under treaty stipulations, June 30, 1917.*

Name of tribes.	Description of annuities, etc.	Number of installments yet unappropriated, explanations, etc.	Statutes.	Annual amount needed to meet stipulations.
Chocataw.....	Permanent annuities.....	{Art. 2, treaty of Nov. 16, 1805, \$3,000... Art. 13, treaty of Oct. 18, 1820, \$600... Art. 2, treaty of Jan. 20, 1825, \$6,000...}	{Vol. 7, p. 99... Vol. 11, p. 614... Vol. 7, pp. 213, 235.	{ \$9,600
Do.....	Provisions for smiths, etc.....	{Art. 6, treaty of Oct. 18, 1820... Art. 9, treaty of Jan. 20, 1825... Art. 11 of agreement of Mar. 26, 1837, ratified by act of Mar. 3, 1891.	{Vol. 7, pp. 212, 236, 614. Vol. 26, p. 1029	{ 920
Cour d'Alene.....	Employees.....	Art. 3, treaty of Mar. 19, 1867.....	Vol. 16, p. 720.	4,000
Chippewa of the Mississippi.....	Physician, carpenter, miller, engineer, farmer, blacksmith, etc.....	Treaty of May 7, 1868, art. 10.....	Vol. 15, p. 632.	6,000
Crow.....	For support of schools.....	Treaty of July 25, 1868, art. 6.....	Vol. 15, p. 667.	100,000
Navajo.....	Subsistence and civilization, per agreement of Feb. 28, 1877, and for pay of 2 teachers, 2 carpenters, 2 farmers, miller, blacksmith, engineer, and physician, per agreement of May 10, 1868.	Estimated.....	Vol. 19, p. 256; vol. 16, p. 658.	80,000
Pawnee.....	Amnity in cash.....	Treaty of Sept. 24, 1857.....	Vol. 11, p. 729.	30,000
Do.....	Support of 2 manual-labor schools and pay of teachers.....	do.....	do.....	10,000
Do.....	{Iron, steel, and other articles for shops, 2 blacksmiths, 1 of whom is to be tin and gunsmith, 2 strikers and apprentices, 2 teachers, etc.	{Estimated for iron and steel, \$500... (Estimated.....	do.....	500
Do.....	Pay of physician.....	do.....	Vol. 11, p. 730.	5,000
Quapaw.....	For education, smith, farmer, and smith shop during the pleasure of the President.....	\$1,000 for education, \$500 for smith, etc. (Estimated.....	Vol. 7, p. 425.	1,500
Sac and Fox of Missouri.....	For support of school.....	Treaty of Mar. 6, 1861.....	Vol. 12, p. 172.	200
Shoshoni and Bannock.....	Permanent annuities.....	February 19, 1831.....	Vol. 4, p. 442.	6,000
Shoshoni.....	Physician, carpenter, teacher, engineer, farmer, and blacksmith.....	Estimated.....	Vol. 15, p. 676.	5,000
Do.....	Blacksmith, and for iron and steel for shops.....	do.....	do.....	1,000
Bannock.....	Physician, carpenter, miller, teacher, engineer, farmer, and blacksmith.....	do.....	do.....	5,000
Six Nations of New York.....	Permanent annuities in clothing, etc.....	Treaty of Nov. 11, 1794.....	Vol. 7, p. 46.	4,500
Sloux of different tribes including Sante Sioux of Nebraska.....	Blacksmith, and for iron and steel.....	Estimated, art. 8, treaty of Apr. 29, 1868.	Vol. 15, p. 633.	1,600
Do.....	Physician, 5 teachers, carpenter, miller, engineer, farmer, and blacksmith.....	Estimated, art. 13, treaty of Apr. 29, 1868.	do.....	10,400
Do.....	Purchase of rations, etc., as per art. 5, agreement of Sept. 26, 1876, and for support and maintenance of day and industrial schools among the Sloux Indians, including the erection and repairs of school buildings.	Estimated, act Feb. 28, 1877, Mar. 2, 1889, and Aug. 1, 1914.	Vol. 19, p. 286; Vol. 33, p. 603.	400,000
Spokane.....	Pay of blacksmith and carpenter.....	Agreement of Mar. 18, 1887, ratified July 13, 1892.	Vol. 27, p. 139.	1,000

Tabasquache, Moache, Capote, Wilmuche, Yampa, Grand River, and Uintah Bands of Utes.	For iron and steel and necessary tools for blacksmith shop.....	Estimated, art. 9, treaty of Mar. 2, 1868. Vol. 15, p. 621.	220
Do.....	2 carpenters, 2 millers, 2 farmers, 2 blacksmiths, and 2 teachers.....	Estimated, art. 15, treaty of Mar. 2, 1868. Vol. 15, p. 622.	8,520
Do.....	Annual amount to be expended under the direction of the Secretary of the Interior in supplying beef, mutton, wheat, flour, beans, etc.	Art. 12, treaty of Mar. 2, 1868. ....do.....	30,000
Total.....	Total.....		726,840

TABLE 44.—*Pro rata shares of tribal trust funds settled during fiscal year ended June 30, 1917.*

States and superintendencies.	Tribes.	Indians paid.	Average pro rata share.	Amount paid.
Total.....		2,732		\$361,029.97
Idaho: Coeur d'Alene.....	Coeur d'Alene.....	49	\$294.42	14,428.56
Iowa: Sac and Fox.....	Sac and Fox.....	9	1,079.57	9,716.13
Kansas.....		36		18,067.45
Kickapoo.....	Kickapoo.....	29	577.37	16,743.73
Potawatomi.....	Potawatomi.....	7	189.10	1,322.72
Montana: Flathead.....	Confederated Flathead.....	370	111.76	41,351.20
Nebraska: Santee.....	Ponca.....	30	65.68	1,970.40
New York: New York.....	Tonawanda (Seneca).....	16	159.21	2,547.40
North Dakota: Standing Rock.....	Sioux.....	183	154.81	28,331.59
Oklahoma.....		747		411,915.51
Cantonment.....	Cheyenne and Arapaho.....	100	310.76	31,076.90
Cheyenne and Arapaho.....	do.....			
Red Moon.....	do.....			
Seger.....	do.....			
Kiowa ¹	Apache, Kiowa, and Comanche.....	416	326.27	135,728.23
Do. ²	do.....	109	768.17	83,730.60
Pawnee.....	Pawnee.....	23	500.64	11,514.73
Ponca.....	Ponca.....	13	47.83	860.94
Osage.....	Osage.....	61	3,819.76	129,227.13
Sac and Fox.....	Sac and Fox.....	20	988.24	19,766.90
Oregon.....		98		21,468.39
Klamath.....	Klamath.....	71	208.39	14,795.89
Umatilla.....	Umatilla.....	27	247.12	6,672.50
South Dakota.....		1,850		400,166.24
Cheyenne River ¹	Sioux.....	40	114.41	4,576.78
Do. ²	do.....	69	243.14	17,121.66
Crow Creek.....	do.....	116	166.76	19,344.75
Lower Brule.....	do.....	7	138.81	971.67
Pine Ridge.....	do.....	504	117.60	59,272.64
Rosebud.....	do.....	127	122.37	15,541.83
Sisseton.....	Sisseton and Wahpeton.....	916	292.35	267,792.60
Yankton.....	Sioux.....	71	218.98	15,544.43
Utah: Uintah and Ouray.....	Ute.....	1	240.07	240.07
Wisconsin.....		344		10,828.91
Keshena.....	Menominee.....	52	84.11	4,373.85
Do.....	do.....	292	22.10	6,455.06

¹ 5 per cent.² 4 per cent.³ 3 per cent.TABLE 45.—*Tribal funds of the Five Civilized Tribes in State and National banks of Oklahoma.¹*

Tribes.	On deposit June 30, 1917.			Interest.	
	Total.	Principal.	Interest.	Paid in the United States Treasury.	Total paid and due.
Total.....	\$3,399,290.42	\$3,289,347.75	\$79,942.67	\$1,046,728.10	\$1,126,665.77
Choctaw.....	1,800,907.64	1,759,630.26	41,287.38	603,673.00	644,960.38
Chickasaw.....	618,666.99	602,835.95	15,781.04	200,004.12	215,785.16
Cherokee.....				31,897.28	31,897.28
Creek.....	917,815.90	895,891.54	21,924.36	204,731.78	236,656.14
Seminole.....	31,899.89	30,950.00	949.89	6,416.92	7,366.81

¹ The deposits are made under the act of Mar. 3, 1911 (36 Stat. L., 1059-1070), in 223 banks. The rates of interest are from 4 to 5½ per cent.

TABLE 46.—*Volume of business in Indian warehouses, fiscal year ended June 30, 1917.*

Warehouses.	Freight shipments.			Express shipments.		
	Number.	Weight.	Value.	Number.	Weight.	Value.
Chicago.....	161,006	<i>Pounds.</i> 147,129,737	\$1,345,621.59	224	<i>Pounds.</i> 9,013	\$3,092.78
San Francisco.....	52,638	5,901,396	291,263.27	(²)	(²)	(²)
St. Louis.....	38,009	130,932,018	329,092.54	30	1,891	1,222.56
Total.....	251,733	89,963,041	1,966,967.40	.....	.....	.....

Warehouses.	Packages mailed.			Percentage of increase of totals over previous year.		
	Number.	Weight.	Value.	Number.	Weight.	Value.
Chicago.....	7,276	<i>Pounds.</i> 28,720	\$19,918.97	<i>Per cent.</i> 26.9	<i>Per cent.</i> 15.3	<i>Per cent.</i> 65.8
San Francisco.....	126	278	233.17	" 10.3	" 11.2	" 12.2
St. Louis ⁴	2,209	5,910	2,342.14	" 49.7	" 4.8	" 22.8
Total.....	9,611	34,908	23,494.28	10.3	2.4	15.9

¹ A considerable part of this weight is coal, handled in car lots.² Included with freight.³ Decrease.⁴ Closed Mar. 31; from Apr. 1 to June 30 all business was handled by Chicago warehouse.

Total number of shipments (packages)..... 251,733
 Total weight..... 90,006,863
 Total value..... \$1,964,676.97

TABLE 47.—*Expense at warehouses, fiscal year ended June 30, 1917.*

Warehouses.	Rent.	Light and fuel.	Employees and inspection of supplies. ¹	Miscellaneous.	Cost of maintenance.	
					Total.	Percent. ²
Chicago.....	\$3,960.00	\$339.82	\$20,621.46	\$4,478.58	\$29,298.86	2.14
San Francisco.....	2,409.00	12.00	7,598.00	1,116.07	11,127.07	3.81
St. Louis ³	1,808.33	196.17	11,502.36	2,066.41	15,262.27	4.56
Total.....	7,858.33	438.99	39,721.82	7,647.06	55,666.20	2.74
Total, 1916.....	.....	.....	.....	.....	61,116.23	3.53
Saving over 1916.....	.....	.....	.....	.....	5,450.03	.79

¹ Includes cost of letting annual contracts for supplies.² Shows the relation of the total maintenance cost to the value of goods handled as set out in the preceding table.³ Closed Mar. 31, 1917.⁴ Increase due to cost of transferring employees to Chicago and Washington and expenses for conducting the annual letting during the months of May and June.

SUPPLIES FOR THE INDIAN SERVICE.

FISCAL YEAR 1918.

The following tables show the contracts awarded under advertisements of March 9, March 29, April 20, April 28, May 1, and July 10, 1917, for supplies for the Indian Service for the fiscal year ending June 30, 1918.

Classification of supplies.

	Page.
Agricultural implements.....	28
Automobile supplies.....	105
Bacon and dry salt meats.....	5
Blankets, etc.....	9
Beef, net, etc.....	107
Boots and shoes.....	16
Carbide.....	106
Clothing, etc.....	13
Chinaware, etc.....	17
Deeks.....	104
Dry goods.....	9
Enameled ware, lamps, etc.....	17
Electrical supplies.....	105
Fire extinguishers.....	106
Furniture and woodenware.....	19
Glass, window.....	35
Gloves and suspenders.....	12
Groceries.....	5
Hardware.....	45
Harness, leather, and shoe findings, etc.....	22
Hats and caps.....	13
Hose goods.....	77
Kindergarten supplies.....	101
Lamps, etc.....	17
Medical supplies.....	78
Miscellaneous supplies.....	106
Mutton.....	107
Notions.....	12
Oils, paints, etc.....	35
Piece goods, etc.....	13
Pipe fittings.....	68
Plumber's and steam and gas fitter's tools, fittings, and supplies.....	67
Pork, fresh.....	107
Schoolbooks, etc.....	88
Stoves, pipe, and hollow ware.....	43
Tin and stamped ware.....	40
Underwear and hosiery.....	10
Uniforms, etc.....	14
Wagons and wagon materials.....	32
Appendix.....	108

NAMES AND NUMBERS OF CONTRACTORS.

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. Atlantic Refining Co., The. 2. Albrecht, Gustave A. 3. Aloe Co., A. S. 4. Aluminum Goods Manufacturing Co. 5. American Book Co. 6. American Carbolite Sales Co. 7. American Seating Co. | <ol style="list-style-type: none"> 8. American Stove Co. 9. Armour & Co. 10. Ash, Fred A. 11. Atchison Saddlery Co., The. 12. Ayres, Ross W. 13. Backus, A., jr., & Sons. 14. Baker & Hamilton. 15. Barker Bros. (Inc.). |
|--|--|

16. Barlow Co., J. T., The.
17. Bauer & Black.
18. Baur, Carl E.
19. Beckley-Cardy Co.
20. Bell Oil Co.
21. Berry Bros. (Inc.).
22. Betz, Frank S., Co.
23. Blackwell, Wielandy Book & Stationery Co.
24. Block, H. & L.
25. Boshyshell Co., E. P.
26. Boyd & Schuster.
27. Bradley Co., Milton.
28. Brandenstein, Max J.
29. Brothers, Howard R.
30. Brun, Frank.
31. Burnitol Manufacturing Co.
32. Burns Saddlery Co., P.
33. Butler Bros.
34. California Steam & Plumbing Supply Co.
35. Cannon Mills.
36. Capen Belting & Rubber Co.
37. Caradine Harvest Hat Co.
38. Carey Co., Philip, The.
39. Carney, Ross E.
40. Carpenter Paper Co.
41. Carson, Pirie, Scott & Co.
42. Carstens Packing Co.
43. Case & Kroenlien.
44. Castle, Timothy P.
45. Caxton School Supply Co.
46. Charter Oak Stove & Range Co.
47. Chicago Medical Book Co.
48. Christensen, Conrad.
49. Claffin Corporation, H. B., The.
50. Clark Leather Co., James.
51. Clark, Robert H.
52. Cleveland Steel Barrel Co., The.
53. Cleveland Worsted Mills Co.
54. Cluff Co., William.
55. Cook, John Richard.
56. Comstock-Castle Stove Co.
57. Conrades Manufacturing Co.
58. Cowen, Mark.
59. Crane Co.
60. Crescent Feather Co.
61. Cross, Curtis B.
62. Crucible Steel Co. of America.
63. Crunden Martin Manufacturing Co.
64. Cudahy Packing Co.
65. Culbertson, Frank.
66. Dalziel Moller Co.
67. Damm & Sons Brush Manufacturing Co., John.
68. Dolliver & Bro.
69. Donel, Aldin W.
70. Duke MacMahon & Co.
71. Ebbert, Edward F.
72. Ellis, Abraham M.
73. Ely & Walker Dry Goods Co.
74. Endicott, Johnson & Co.
75. Farr, David.
76. Federal Sales & Service Co.
77. Fetzner & Co.
78. Field & Co., Marshall.
79. Fisk Rubber Co. of New York, The.
80. Flanagan Co., A.
81. Forbes Tea & Coffee Co., Jas. H.
82. Foster Bros. Manufacturing Co., The.
83. Frank & Co., S. H.
84. Frye & Co.
85. Fuller & Co., W. P.
86. Fulton Bag & Cotton Mills.
87. Garlock Packing Co., The.
88. Garner, John T.
89. General Manufacturing Co., The.
90. Gilreath Co.
91. Ginn & Co.
92. Ginn, James R.
93. Glens Falls Pharmaceutical Co.
94. Goodrich Rubber Co., The B. F.
95. Goodyear Rubber Co.
96. Goodyear Tire & Rubber Co., The.
97. Gould, George H.
98. Graham Manufacturing Co., James.
99. Graton & Knight Manufacturing Co., The.
100. Greenberg & Bro., Max.
101. Greenebaum, Weil & Michels.
102. Gutman Bros.
103. Haas Bros.
- 103½. Haas Lieber Grocery Co.
104. Haase & Sons Fish Co., A. C. L.
105. Hammert, B. W.
106. Handlan-Buck Manufacturing Co.
- 106½. Hanisch Sons, R.
107. Harrisons (Inc.).
- 107½. Harvey Spring & Forging Co.
108. Haselbacher, John A.
109. Heath & Co., D. C.
110. Heath & Milligan Manufacturing Co.
111. Henry, Robert W.
112. Hershey Chocolate Co.
113. Heyman, Samuel.
114. Heywood Bros. & Wakefield Co.
115. Hirsch & Sons Mercantile Co., Cal.
116. Hockmeyer, Otto.
117. Holbrook, Merrill & Stetson.
- 117½. Homann Saddlery Co., Wm.
118. Homann, Henry J.
119. Hooker Co., N. M.
120. Hopkins, Temp H.
121. Horlick's Malted Milk Co.
122. Houghton Mifflin Co.
123. Howard, Rowland H.
124. Howe Scale Co. of Illinois.
125. Hudson & Bro.
126. Hulse-Bradford Co.
127. Hyland, Richard O.
128. Humphrey Supply Co.
129. Ilfeld Indian Trading Co.
130. Illinois Glass Co.
131. Inland White Lead Co.
132. Jones Bros. & Co.
133. Johns, Hugh M.
134. Jones & Laughlin Steel Co.
135. Judson, Frank W.
136. Kaiser Manufacturing Co., Jacob.
137. Kasper, Peter J.
138. Keller & Tamm Manufacturing Co.

139. Kelly & Jones Co., The.
140. Kennard & Sons Carpet Co., J.
141. Klaine Co., F. A., The.
142. Kling Bros. Co. (Inc.).
143. Krell, Oscar P.
144. Krenning-Schlapp Grocery Co.
145. Kuehne Flavoring Extract Co., F. T.
146. Lammert Furniture Co., The.
147. Law & Co., Ernest.
148. Laporte, Joseph K.
149. Lawrence, George Co., The.
150. Leich Co., John H.
151. Leonard & Co., F. B.
152. Lippincott Co., J. B.
153. Lyford, Harry B.
154. Lyster Chemical Co.
155. MacMillan Co., The.
156. Maendler Bros.
157. Mallinckrodt Chemical Works.
158. Malthie Chemical Co., The.
159. Manhattan Rubber Manufacturing Co., The.
160. Marcott & Favereau.
161. Mason Ehrman & Co.
162. Mason, William P.
163. Martine, Henry P.
164. Matthews & Co., Geo. T.
165. Mayer, M. & C.
166. Merrill Co., Charles E.
167. Merrill Drug Co., J. S.
168. Mexican American Hat Co.
169. Midland Glass & Paint Co.
170. Miller, George L.
171. Miller & Jensen.
172. Miltenberger, Geo.
173. Missouri Lamp & Mfg. Co.
174. Moller & Schumann Co.
175. Monarch Knitting Co., The.
176. Mound City Oil & Supply Co., The.
177. Mutual Biscuit Co.
178. Mulford Co., H. K.
179. McCarty, Charles F.
180. McConnell Co., S. R. & I. C.
181. McCormac, John F.
182. McKey, William A.
183. McKittrick; Ralph.
184. National Lead Co., The.
185. Neustadter Bros.
186. Nevada Packing Co.
187. Newbauer & Co., J. H.
188. Northern Redwood Lumber Co., The.
189. Northwestern Electric Equipment Co.
190. Nuckolls Packing Co.
191. Nystrom, Albert J.
192. Odell, John E.
193. Oil Products Co.
194. Orange Judd Co.
195. Pacific Coast Syrup Co.
196. Pacific Commercial Co.
197. Pacific Metal Works.
198. Pacific Mill & Mine Supply Co.
199. Palmer Co., A. N., The.
200. Paraffine Paint Co., The.
201. Parke, Davis & Co.
202. Patent Button Co., The.
203. Patent Vulcanite Roofing Co., The.
204. Paxton & Gallagher Co.
205. Peabody, Thos. A.
206. Peck & Hills Furniture Co.
207. Peerless Handcuff Co.
208. Pendry, Harrison E.
209. Peoria Cordage Co.
210. Pierce Oil Corporation.
211. Pike & Co., A. W.
212. Poelstra, A. W.
213. Powell Co., Wm., The.
214. Pugh, Wm. J.
215. Puhl-Webb Co.
216. Pyrene Manufacturing Co.
217. Rand, McNally & Co.
218. Reed, Samuel I.
219. Reichardt & Co. (Inc.), F. Alfred.
220. Reid Murdoch & Co.
221. Rice, Arthur J.
222. Rice, Oliver S. J.
223. Ringen Stove Co.
224. Risk Co. (Inc.), James.
225. Robbins, Clarence.
226. Rock Island Plow Co.
227. Rode, John H.
228. Rogers (Ltd.), Wm. A.
229. Rosenberg, Moe.
230. Russell Mfg. Co., The.
231. Salz, Analek K.
232. Sanders, William C.
233. Schiedermayer, Max.
234. Schlueter & Beecher.
235. Scruggs-Vandervoort Birney Dry Goods Co.
236. Scudders-Gale Grocery Co., The.
237. Seller, Henry.
238. Shapleigh Hardware Co.
239. Silver Burdett & Co.
240. Simmons Hardware Co.
241. Simons, Sanford.
242. Sklar Manufacturing Co., J.
243. Sloane, W. & J.
244. Southwestern Broom & Warehouse Co., The.
245. Sperry Flour Co.
246. Spotswood Helfer Co.
247. Squibb & Sons, E. R.
248. Standard Biscuit Co.
249. Standard Crayon Manufacturing Co., The.
250. Standard Oil Co. (California).
251. Standard Oil Co. (Indiana).
252. Standard Soap Co., The.
253. Steinwender-Stoffregen Coffee Co.
254. Stix, Baer & Fuller Dry Goods Co.
255. St. Louis Glass & Queensware Co.
256. Stover Manufacturing & Engine Co.
257. Strong, Cobb & Co.
258. Studebaker Corporation of America, The.
259. Sunderland Bros. Co.
260. Superior Manufacturing & Supply Co.

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| 261. Sutton, Edwin D. | 285. Westermann, Wm. H. |
| 262. Swalley, Thomas Z. | 286. Western Electric Co. |
| 263. Swift & Co. | 287. Western Leather Dressing Co. |
| 264. Taylor Instrument Companies. | 288. Western Steel & Iron Works. |
| 265. Thomas, George L. | 289. Wheeler Varnish Works. |
| 266. Thomson & Co. | 290. Whetton, Arthur J. |
| 267. Tillman & Bendel. | 291. Whitaker-Glessner Co. |
| 268. Tottle & Co. (Inc.), Wm. A. | 292. White & Co. (Inc.), H. Kirk. |
| 269. Tribolet Packing Co. | 293. White Sewing Machine Co. |
| 270. Turner, John L. | 294. White Washburne Co. (Inc.). |
| 271. Tuthill Spring Co. | 295. Wilder, George S. |
| 272. Union Meat Co. | 296. Wilhelm, Charles M. |
| 273. Union Carbide Sales Co. | 297. Wilkinson, Thos. H. |
| 274. United Chemical Companies. | 298. Winkleman Bag & Burlap Co. |
| 275. United States Horse Shoe Co. | 299. Wisconsin Pearl Button Co. |
| 276. United States Rubber Co. | 300. Wilson, Francis J. |
| 277. University Publishing Co., The. | 301. Wolf, J. & M. |
| 278. Vane-Calvert Paint Co. | 302. Wrought Iron Range Co. |
| 279. Vesuvio & Piedmont Paste Co. | 303. Wunder, Adam D. |
| 280. Walker, James C. | 304. Wyeth & Bro. (Inc.), John. |
| 281. Walter & Co., D. N. & E. | 305. Yates, jr., Charles M. |
| 282. Ward & Co., Montgomery. | 306. Young, John E. |
| 283. Webb Publishing Co. | 307. Zellenbach Paper Co. |
| 284. Wenzel Tent & Duck Co., H. | 308. Zinna, Lucius A. |

GROCERIES AND PROVISIONS.

Articles.	Bids opened in San Francisco Apr. 2, 1917.				Bids opened in Chicago May 2, 1917.			
	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
Allspice, absolutely pure, ground.....	105 pounds.....	\$0.185	106	San Francisco	180 pounds ¹	\$0.14	204	Omaha
In 1-pound tins.....		.150	106	do.		.12	204	Do.
Bacon:.....								
Extra short clear, average weight, 30 to 40 pounds.....	27,270 pounds.....	.2387	9	do.	85,980 pounds.....	.2376	9	(²).
Square cut, 30 to 60 pounds.....		.2387	9	do.	83,817 pounds.....	.2376	9	(²).
Short clear, 50 to 60 pounds.....	12,425 pounds.....	.2487	9	do.	101,460 pounds.....	.23	43	Seattle or Tacoma.
Clear bellies.....	1,300 pounds.....	.2675	272	North Portland	14,770 pounds.....	.2564	9	(²).
30 to 35 pounds.....	1,350 pounds.....	.2475	272	do.	12,276 pounds.....	.25	43	Seattle or Tacoma.
					5,800 pounds.....	.245	43	Do.
					13,960 pounds.....	.2517	9	Chicago, Omaha, etc.
Dry salt pork:.....								
Rough ribs, 50 to 60 pounds.....	3,200 pounds.....	.20	272	do.	1,800 pounds.....	.2132	9	Do.
Fatback, 8 to 10 pounds.....	4,700 pounds.....	.21375	263	Chicago	45,575 pounds.....	.2142	9	Do.
Short clear bellies, 30 to 35 pounds.....	1,400 pounds.....	.2283	9	San Francisco				
Baking powder.....	2,350 pounds.....	.21	272	North Portland	50,800 pounds.....	.224	9	Do.
In 1-pound tins.....	4,543 pounds.....	.1899	106	San Francisco	23,689 pounds ¹	4.1425	137	Chicago.
In 1-pound tins.....		.1159	106	do.		4.108	137	Do.
Barley, pearl.....	3,645 pounds.....	.057	245	Stockton.	12,900 pounds.....	.057	13	Chicago, Omaha, Kansas City, St. Paul, and St. Louis.
Bath brick.....	No award.			(See Appendix.)	No award.			(See Appendix.)
Beeswax.....	105 pounds.....	.375	305	San Francisco	190 pounds.....	.56	144	St. Louis
Bluing (tablet form).....	483 dozen.....	.72	145	St. Louis	No award.			(See Appendix.)
Candles, 6's.....	436 pounds.....	.1175	250	San Francisco	570 pounds ¹			(See Appendix.)
Cassia (cinnamon), ground.....								
In 1-pound tins.....	249	.24	196	do.		.19	204	Omaha
In 1-pound tins.....						.17	204	Do.
Cheese, American.....	No award.				5,585 pounds ¹.....	.26	272	North Portland.
Chocolate.....	798 pounds.....	.26	112	Hershey, Pa.	1,137 pounds.....	.28	137	Chicago.
Cloves, ground.....	63 pounds ¹.....	.35	267	San Francisco	175 pounds.....	.31	204	Do.
In 1-pound tins.....						.29	204	Do.
In 1-pound tins.....								
Cocoa.....	2,413 pounds.....				4,967 pounds ¹			
In 1-pound tins.....		.21	112	Hershey, Pa.		.24	137	Chicago.
In 1-pound tins.....		.20	112	do.		.23	137	Do.
In 5-pound tins.....		.19	112	do.		.21	137	Do.

¹ Only
² Chicago, South Omaha, Kansas City, Kans., Sioux City, East St. Louis, and South St. Joseph.

³ 20 to 35 pounds.

⁴ In fiber cans, tin top and bottom.

GROCERIES AND PROVISIONS—Continued.

Articles	Bids opened in San Francisco Apr. 2, 1917.				Bids opened in Chicago May 2, 1917.			
	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
Coffee, green (for the entire service).	336,101 pounds ¹ .	\$0.11664	133	San Francisco.				
	39,935 pounds ¹ .	.11	81	St. Louis.				
	188,000 pounds ¹ .	.1174	137	Chicago.				
	140,000 pounds ¹ .	.1125	81	St. Louis.				
Comstarch.	2,851 pounds ¹ .	.0625	103	San Francisco.	7,042 pounds ¹ .	\$0.064	137	Chicago.
Cream of tartar.	38 pounds.	.61	253	St. Louis.	416 pounds ¹ .	.55	204	Omaha.
In 1-pound tins.		.60	253	St. Louis.		.53	204	Do.
Fish:								
Canned salmon, No. 1 cans.	579 dozen cans ¹ .	1.89	103	San Francisco.	600 dozen ¹ .	2.25	104	St. Louis.
Salted salmon.	No award.				1,530 dozen ¹ .	2.32	137	San Francisco.
Coddish, boneless strips.	do.				3,300 ¹ .	.11	104	St. Louis.
Mackerel, pickled.	do.				2,600 ¹ .	.105	104	Do.
Lemon, liquid, 8-ounce bottles.	324 bottles.	.1575	215	(See Appendix.)	No award.			(See Appendix.)
Lemon, paste.	No award.			Chicago.	1,500 pounds.	.155	104	St. Louis.
Vanilla, liquid, 8-ounce bottles.	466 bottles.	.33	253	St. Louis.	633 bottles.	.20	215	Chicago.
Vanilla, paste.	No award.				No award.			Do.
Ginger, ground.	348 pounds.	.21	196	San Francisco.	778 bottles.	.37	115	Do.
In 1-pound tins.		.19	186	do.	473 pounds ¹ .			
Ham, smoked.	5,100 pounds.	.265	272	North Portland.		.20	204	Omaha.
Hard bread.	33,550 pounds.	.063	177	San Francisco.		.18	204	Do.
Oleomargarine, for table use (for the entire service).					34,416 pounds.	.2768	9	(¹)
Hops, fresh, pressed, in 1 and 1/2 pound packages.	213 pounds.	.1495	187	San Francisco.	67,850 pounds.	.0675	248	San Francisco.
Lard:					19,000 pounds.	.2223	9	Chicago or Kansas City, Kans.
In 5-pound cans.	1,995 pounds.	.2475	273	North Portland.	226 pounds ¹ .	.17	187	San Francisco.
In 10-pound cans.	1,680 pounds ¹ .	.2476	263	Kansas City, Kans.	4,215 pounds.	.2649	9	Kansas City, Kans.
In 5-pound cans.	12,806 pounds.	.245	273	North Portland.	18,280 pounds.	.2637	9	Do.
In 10-pound cans.	1,015 pounds ¹ .	.24378	263	Kansas City, Kans.				
Lard, compound:								
In 5-pound cans.	2,765 pounds.	.1865	9	San Francisco.	625 pounds.	.2187	9	New York, Chicago, St. Louis.
In 10-pound cans.	17,610 pounds.	.1815	9	do.	47,720 pounds.	.2124	9	Do.
Macaroni.	12,689 lbs.	.0823	279	do.	20,165 pounds.	.0875	215	Chicago.
Lye, concentrated.	No award.				1,852 dozen ¹ .	.78	220	Do.
Matobes, safety.	263 gross.	.65	113	San Francisco.	686 gross.	.80	161	Portland.
Meat pork.	47 barrels ¹ .	\$8.00	263	Chicago.	403 barrels.	\$9.97	9	Chicago, Sioux City, East St. Louis.

GROCERIES AND PROVISIONS—Continued.

Articles.	Bids opened in San Francisco Apr. 2, 1917.				Bids opened in Chicago May 2, 1917.			
	Quantity awarded.	Unit price.	Num-ber of con-tainer.	Point of delivery.	Quantity awarded.	Unit price.	Num-ber of con-tainer.	Point of delivery.
Tea (for the entire service)	3,788 pounds ¹	\$0.2150	123	San Francisco.				
	4,010 pounds.....	.20	28	do.				
	3,283 pounds.....	.22	28	do.				
	6,720 pounds ¹.....	.185	267	do.				
Vinegar:	240 gallons.....	.25	132	do.	385 gallons.....	\$0.25	172	St. Louis.
	In 5-gallon kegs.....				385 gallons.....	.26	172	Do.
	In 10-gallon kegs.....	.22	132	do.	504 gallons.....	.17	172	Do.
	In 15-gallon kegs.....	.21	132	do.	1,456 gallons ².....	.14	172	Do.
	In 30-gallon kegs.....	.19	132	do.	1,456 gallons.....	.14	172	Do.
Washing powder.....	5,170 pounds ¹.....	.025	263	Chicago.....	23,750 pounds ¹.....	.01875	263	Chicago.

¹ Only.² Distilled.

DRY GOODS, ETC.

[Bids opened in Chicago May 2, 1917.]

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
Blankets, single, all wool:				
For single beds, indigo blue, 54 by 84 inches.....				
For double beds, 68 by 84 inches.....				
For single beds, scarlet, 54 by 84 inches.....				
For double beds, 68 by 84 inches.....				
For single beds, white, 54 by 84 inches.....				
For double beds, 68 by 84 inches.....	4,502.....	\$4.50	115	St. Louis.
Blankets, single, wool and cotton mixed:				
For single beds, indigo blue, 54 by 84 inches.....				
For double beds, 68 by 84 inches.....				
For single beds, scarlet, 54 by 84 inches.....				
For double beds, 68 by 84 inches.....				
For single beds, white, 54 by 84 inches.....				
For double beds, 68 by 84 inches.....				
Blankets, single, all cotton:				
Tan, 68 by 84 inches, for double beds.....	305.....	2.98	266	Chicago, New York, St. Louis.
Gray.....	692.....	2.98	266	Do.
Tan, 54 by 84 inches, for single beds.....	771.....	2.45	266	Do.
Gray.....	651.....	2.45	266	Do.
Counterpanes, white:				
For single beds.....	No award.....			
For double beds.....	No award.....			
Bedticking.....	2,565 yards ¹.....	.1847	221	St. Louis.
Calico:				
Indigo.....	11,264 yards ².....	.0856	221	Do.
Shirting.....	4,648 yards ².....	.0715	221	Do.
Oil red.....	470 yards ².....	.0893	16	Dayton, Ohio.
Crash, linen, washed, without colored border.....	119,539 yards ².....	.0975	78	Chicago.
Burlap, tan color.....	No award.....			
Denim, art. green.....	No award.....			
Diaper cloth.....	8,345 yards ².....	.11	221	St. Louis.
Duck (Indian Head), approximately 48 by 48 inches; 36-inch, bleach, shrunk finish.....	10,345 yards ².....	.1486	221	Do.
Flannel, red, twilled.....	805 yards ².....	.60	49	New York.
Gingham.....	78,000 yards ².....	.063	78	Chicago.
Hickory shirting.....	61,324 yards ².....	.114	266	Chicago, New York, or St. Louis.
Linen, India.....	2,662 yards.....	.15	71	Chicago.
	(8,817 yards ²)	.385	41	Do.
Linen, table, 62-inch.....	8,816 yards ².....	.485	41	Do.
	(1,800 yards ²)	.49	71	Do.
Mosquito net or bar.....	797 pieces ².....	.637	41	Do.
Outing flannel:				
Dark-colored patterns.....	(³).....			
Light-colored patterns.....	50,175 yards ².....	.0975	71	Do.
Panama cloth, gray, 54-inch.....	No award.....			
Panama cloth, dark blue, all wool, 54-inch.....	4,210 yards ²	1.30	78	Do.
Serge, dress, dark blue, 54-inch.....	3,195 yards.....	1.15	53	Ravenna, Ohio.
Percale:				
Indigo dye, 80 by 80 count.....	(³).....			
White and black, 80 by 80 count.....	12,882 yards ².....	.1524	221	St. Louis.
Plaid, glass toweling, linen, about 18 to 20 inches wide.....	No award.....			
Seersucker, blue:				
Crinkled.....	(³).....			
Uncrinkled.....	76,982 yards ².....	.125	221	Do.
Sheeting, brown, heavy, standard:				
4/4 (48 by 48), weight about 2.85.....	26,261 yards ².....	.1375	41	Chicago.
4/4 (64 by 68), weight about 2.85.....	14,830 yards ².....	.1275	41	Do.
6/4.....	47,962 yards ².....	.184	266	Chicago, New York, St. Louis.
9/4, for double beds.....	13,367 yards ².....	.285	266	Do.
Sheeting (bleached muslin), 4/4 (84 by 80).....	21,681 yards ².....	.13	78	Chicago.
Silesia, black and slate, 36 inches wide.....	No award. (See Appendix.).....			
White crossbar, for aprons.....	4,942 yards ².....	.1025	78	Chicago.
Oilcloth:				
Table, 5/4.....	15,000 yards ².....	.094	78	Do.
White.....	7,097 yards ².....	.1583	78	Do.
Veined.....	1,551 yards ².....	.1583	78	Do.

¹ Blue, 68 by 88 inches; weight, 5 pounds.
² Only.
³ Sample No. 1.

⁴ Sample No. 2.
⁵ Outing flannel, light colored, selected to fill this item.
⁶ Seersucker, uncrinkled, selected to fill this item.

DRY GOODS, ETC.—Continued.

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
Oilcloth—Continued.				
Opaque, for window shades, assorted colors.	No award.	.....	
Translucent, for window shades.....	No award.	.....	
Window-shade rollers, with fixtures, complete.	No award.	.....	
Cotton bats.....	No award.	.....	
Scarfs, silk mull, about 2 yards long.....	1,564 ¹	\$0.365	71	Do.
Sweaters, wool and cotton mixed:				
Children's, sizes 26 to 34 inch bust measure—				
Cardinal ²	2,057.....	1.495	16	Dayton, Ohio.
Navy blue ²	355.....	1.495	16	Do.
Gray ²	911.....	1.495	16	Do.
Ladies', sizes 34 to 44 inch bust measure—				
Cardinal ²	2,195.....	1.395	16	Do.
Navy blue ²	176.....	1.395	16	Do.
Gray ²	533.....	1.395	16	Do.
Fascinators, wool, assorted colors	No award.	.....	
Flags, United States, of the following hoists (width of flag):				
NOTE.—The fly (length of flag) runs 1.9 feet for each foot of hoist.				
2.90 feet.....	( ).....	.....	
3.52 feet.....	( ).....	.....	
5 feet.....	( ).....	.....	
8.94 feet.....	( ).....	.....	
Handkerchiefs, good grade white cotton:				
Men's.....	2,144 dozen.....	.52	70	Chicago.
Ladies'.....	1,536 dozen.....	.58	70	Do.
Mittens, woolen, assorted sizes:				
Boys'.....	262 dozen ¹	2.15	41	Do.
Girls'.....	201 dozen ¹	1.375	41	Do.
Misses' and women's.....	158 dozen ¹	2.25	41	Do.
Shawls, dark-colored plaid:				
Single, about 8/4.....	100.....	1.40	71	Do.
Double, about 16/4.....	148.....	2.72	71	Do.
Skirts, balmoral, wool, gray only.....	No award.	.....	
Skirts, knit, wool, gray only.....	928.....	.705 ³	175	Buffalo, Chicago.

UNDERWEAR AND HOSIERY.

Corset waists, misses' and women's, sizes 20 to 30.	778 ⁴	\$0.43 ¹	78	Chicago.
Undershirts, men's, balbriggan, light, for summer wear, assorted sizes, 34 to 46 inches chest measure.	6,533.....	.29	16	Dayton, Ohio.
Drawers, men's, balbriggan, light, for summer wear, assorted sizes, 30 to 44 inches waist measure.	7,131 pairs.....	.29	16	Do.
Undershirts, men's, for winter wear, assorted sizes 34 to 46 inches chest measure.	4,100.....	.495	16	Do.
Drawers, men's, for winter wear, assorted sizes, 30 to 44 inches waist measure.	4,507 pairs.....	.495	16	Do.
Undershirts, men's, extra heavy, for cold climates, assorted sizes, 34 to 46 inches chest measure.	916.....	.515	16	Do.
Drawers, men's, extra heavy, for cold climates, assorted sizes, 30 to 44 inches waist measure.	984 pairs.....	.515	16	Do.
Undershirts, boys', balbriggan, light, for summer wear, assorted sizes, ages from 6 to 16 years.	2,474.....	.175	71	Chicago.
Drawers, boys', balbriggan, light, for summer wear, assorted sizes, ages from 6 to 16 years.	1,788.....	1.1459	102	New York.
Undershirts, boys', for winter wear, assorted sizes, ages from 6 to 16 years.	4,293 pairs.....	.175	71	Chicago.
Drawers, boys', for winter wear, assorted sizes, ages from 6 to 16 years.	3,713.....	1.275	16	Dayton, Ohio.
Drawers, boys', for winter wear, assorted sizes, ages from 6 to 16 years.	3,871 pairs.....	1.275	16	Do.

¹ Only.² Wool.³ 10 per cent wool.⁴ No award. To be purchased through General Supply Committee, Washington, D. C., at its contract prices.⁵ Age 6. Rise of \$0.03.

UNDERWEAR AND HOSIERY—Continued.

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
Undershirts, boys', extra heavy, for cold climates, assorted sizes, ages from 6 to 16 years.	810.....	\$0.26	16	Dayton, Ohio.
Drawers, boys', extra heavy, for cold climates, assorted sizes, ages from 6 to 16 years.	770 pairs.....	1.26	16	Do.
Union suits, men's, assorted sizes, 34 to 46 inches chest measure:				
Balbriggan, light for summer wear.....	4,441.....	.55	71	Chicago.
For winter wear.....	3,335.....	.86	301	New York.
Extra heavy, for cold climates.....	1,347.....	1.86	224	Do.
Union suits, boys, assorted sizes, ages 6 to 16 years:				
Balbriggan, light, for summer wear.....	4,197.....	.475	16	Dayton, Ohio.
For winter wear.....	4,184.....	1.49	71	Chicago.
Extra heavy, for cold climates.....	2,278.....	.575	301	New York.
Union suits for small boys, 6 to 10 years:				
For summer wear.....	1,053.....	.475	16	Dayton, Ohio.
For winter wear.....	1,086.....	1.40	71	Chicago.
Extra heavy for cold climates.....	490.....	.47	301	New York.
Union suits, women's, 34 to 44 inches bust measure:				
Low neck, sleeveless, for summer wear.....	9,553.....	{ .225 .245 }	71	Chicago.
For summer wear, long sleeves and high neck.....	2,660.....	{ .46 .49 }	71	Do.
For winter wear.....	9,324.....	{ .475 .495 }	16	Dayton, Ohio.
Extra heavy for cold climates—				
Size 34.....	2,120.....	.64	224	New York.
Size 36.....		.66		
Size 38.....		.68		
Size 40.....		.73		
Size 42.....		.77		
Size 44.....		.81		
Union suits, children's (small girls'), 6 to 12 years:				
Low neck, sleeveless, for summer wear.....	{ 263.....	.225	71	Chicago.
For summer wear, long sleeves and high neck.....	{ 2,708.....	1.224	150	Mohersville, Pa.
For winter wear.....	1,981.....	.26	71	Chicago.
Extra heavy for cold climates.....	5,896.....	1.455	16	Dayton, Ohio.
Union suits, misses', 14 to 16 years:	2,375.....	1.525	16	Do.
Low neck, sleeveless, for summer wear.....	2,416.....	.225	16	Do.
For summer wear, long sleeves and high neck.....	1,204.....	.29	71	Chicago.
For winter wear.....	3,349.....	.525	71	Do.
Union suits, misses', open seat, extra heavy for cold climates, 14 and 16 years, 3 to each pupil (for schools only).	1,049.....	1.625	16	Dayton, Ohio.
Half hose:				
Men's—				
Woolen, sizes 10½ to 11½.....	280 dozen pairs ¹.....	.2225	165	New York.
Cotton, mixed, heavy, sizes 9½ to 11½.....	{ 400 dozen pairs ¹ 400 dozen pairs ¹ 1,000 dozen pairs ¹ 1,676 dozen pairs ¹	{ .97 1.00 1.08 1.68 }	{ 72 72 165 }	{ Philadelphia or New York. New York.
Boys'—				
Cotton, mixed, heavy, sizes 9 to 10... ..	823 dozen pairs ¹	1.92	72	Philadelphia or New York.
Cotton, black, tan, or brown, sizes 8, 9, and 10.....	381 dozen pairs ¹	1.15	72	Do.
Hose:				
Boys', heavy cotton, ribbed, black, sizes 7 to 10.....	1,944 dozen pairs ¹	1.85	72	Do.
Women's, sizes 9 to 11—				
Heavy cotton, black, for cold climates.....	1,224 dozen pairs ¹	1.85	78	Chicago.
Cotton, black.....	1,670 dozen pairs ¹	1.25	35	Statesville, N. C.
Misses', sizes 6½ to 8½.....				
Heavy cotton, black, for cold climates.....	1,439 dozen pairs ¹	1.175	72	New York or Philadelphia.
Cotton, black.....	846 dozen pairs ¹	1.85	72	Do.
Stocking feet, black, tan, or brown, sizes 6½ to 11.....	No award.....			

¹ Age 6; rise \$0.08.

² Size 34. Rise, \$0.02.

³ Age 12. Rise, \$0.0325.

⁴ Age 6, rise of \$0.0625.

⁵ Sizes 34, 36, 38.

⁶ Size 40, 42, and 44.

⁷ Only.

⁸ Age 14; rise \$0.08.

⁹ If delivered within 60 days add \$0.02 per dozen pairs.

¹⁰ Sizes 9, 9½, and 10.

¹¹ 45 cents per hundredweight freight allowed.

GLOVES AND SUSPENDERS.

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
Gloves, buck or horsehide, boys' and men's...	No award.....	.....	.....	See Appendix.
Gloves, canvas:				
Boys'.....per dozen pairs.....	6,986 pairs.....	\$0.825	71	Chicago.
Men's.....do.....	12,473 pairs.....	.85	71	Do.
Suspenders:				
Boys'.....	5,006.....	.11	230	New York, Chicago, or St. Louis.
Men's.....	3,090.....	.16	230	Do.
Belts, leather:				
Boys'.....	83 dozen ¹	1.80	71	Chicago.
Men's.....	113 dozen ¹	2.64	71	Do.

NOTIONS.

Braid, dress:				
Worsted, black—				
1-inch.....	2,488 yards ¹	\$0.005	71	Chicago.
1-inch.....	1,750 yards ¹.....	.0206	78	Do.
1-inch.....	1,892 yards ¹.....	.0313	78	Do.
White—				
1-inch.....	2,009 yards ¹.....	.005	71	Do.
1-inch.....	2,242 yards ¹.....	.024	78	Do.
Cardinal, worsted, 1-inch.....	6,725 yards ¹.....	.0181	78	Do.
Brushes:				
Hair.....	509 dozen.....	2.70	147	Do.
Tooth—				
For children.....	No award.....	.....	.....	See Appendix
For adults.....	do.....	.....	.....	Do.
Buttons:				
Dress—				
Vegetable ivory, 26-line.....	263 gross ¹.....	.69	71	Chicago.
Smoked pearl, 24-line.....	1,027 gross.....	.31	299	La Crosse, Wis.
Pearl, 24-line.....	1,156 gross.....	.25	230	New York or Chicago.
Shirt, bone—				
18-line.....	778 gross ¹.....	.3094	78	Chicago.
20-line.....	1,026 gross ¹.....	.3352	78	Do.
Shirt, pearl, 16-line.....	570 gross.....	.19	51	New York, Kansas City, St. Paul, or Omaha.
Bone, 28-line.....	667 gross ¹	1.4642	78	Chicago.
Collars, military, white, rubber or celluloid, sizes 12 to 17 inches.	4,027 ¹.....	.0516	78	Do.
Clamps, for fastening rubber or celluloid collars to uniform coats.	172 dozen ¹.....	.2273	78	Do.
Combs:				
Coarse, dressing—				
Girls'.....	1,991 dozen.....	{ .70 .58½	4	Do.
Boys'.....				
Fine, aluminum.....	940 dozen.....	.73	4	Do.
Cotton:				
Darning, No. 2, 8-ply—				
Black, fast color.....	1,940 dozen spools. ¹	.195	78	Do.
White.....	239 dozen spools ¹	.195	78	Do.
Gray.....	334 dozen spools ¹	.195	78	Do.
Spool, best of standard 6-cord, Nos. 20 to 100, white and black, 200 yards to the spool.	8,799 dozen spools.	.47	16	Dayton, Ohio.
Emeries, "strawberry".....	197 ¹.....	.028	71	Chicago.
Hooks and eyes, brass, white and black, Nos. 2, 3, and 4.	908 gross.....	.17	71	Do.
Indelible ink.....	308 dozen.....	.715	71	Do.
Laces, shoe:				
Leather, 36-inch.....	No award.....	.....	.....	(See Appendix.)
Tubular, 1/4, black.....	1,049 gross ¹	1.28	71	Chicago.
Needles:				
No. 5, sharps.....	640 hundred.....	.134	16	Dayton, Ohio.
No. 6, sharps.....	739 hundred.....	.134	16	Do.
No. 7, sharps.....	486 hundred.....	.134	16	Do.
Darning, small size.....	No award.....	.....	.....	.....
Paper, toilet, round, rolls of 1,000 sheets.....	111,227 rolls.....	{ .076823 .076058 .078734 .078351	204	Hinsdale, N. H.
				Do.
				Kaukauna, Wis.
				Do.
Paper holders, toilet (for round rolls).....	No award.....	.....	.....	(See Appendix.)

¹ Only.² 27-line.³ 100 rolls in case.⁴ 200 rolls in case.

NOTIONS—Continued.

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
Pins, brass, 300 pins to the paper:				
M. C.	461 packages ¹	\$0.075	78	Chicago.
S. C.	238 packages ¹ .....	.625	78	Do.
F. 34	110 packages ¹ .....	.575	78	Do.
Pins, hat, girls', black heads, steel, about 7½-inch.	No award			
Pins, hair, wire, crinkled	747 pounds .....	.24	16	Dayton, Ohio.
Pins, safety, brass:				
1-inch	236 gross .....	.275	78	Chicago.
1½-inch	356 gross .....	.325	78	Do.
2-inch	381 gross .....	.425	78	Do.
Ribbon, all silk, white, black, cardinal, navy, and light blue:				
3-inch	15,115 yards ¹	\$.085	71	Do.
4-inch	No award			
Scissors, buttonhole	do			
Silk, sewing, No. A, 50-yard spools:				
Cardinal	180 dozen spools .....	.29	29	New York or Chicago.
Black	449 dozen spools .....	.29	29	Do.
Tape measures, medium	121 dozen ¹ .....	.31	71	Chicago.
Tape, white, cotton:				
1-inch	357 dozen pieces ¹ .....	.15	71	Do.
1½-inch	443 dozen pieces ¹ .....	.178	78	Do.
2-inch	243 dozen pieces ¹ .....	.19	78	Do.
3-inch	295 dozen pieces ¹ .....	.221	78	Do.
Tape, elastic, black:				
1-inch	740 yards .....	.011	230	New York, Chicago, or St. Louis.
1½-inch	2,801 yards .....	.031	230	Do.
2-inch	17,063 yards .....	.039	230	Do.
Thimbles, steel, sizes 5, 6, 7, and 8:				
Closed	No award			(See Appendix.)
Open	do			Do.
Thread, linen, dark blue, and unbleached; 200 yards to the spool:				
No. 30	57 dozen	1.25	71	Chicago.
No. 35	32 dozen	1.15	71	Do.
No. 40	58 dozen	1.15	71	Do.

HATS AND CAPS.

Caps:				
With ear covers, Corduroy, for winter wear, assorted sizes—				
boys'	3,048	\$0.48	100	New York.
Men's	1,895 .....	.50	100	Do.
Military, navy blue, boy's and men's, assorted sizes.	No award			
Caps, stocking, for small boys and girls.	3,222 ¹ .....	.33½	78	Chicago.
Hats, military, tan color, assorted sizes:				
Boys'	No award			(See Appendix.)
Men's	do			Do.
Men's, police	do			
Hats, straw, Mexican, assorted sizes, for boys' and girls' farm use.	541	\$.17	37	St. Louis.
		.17	37	
		.15	168	

CLOTHING, ETC.

PIECE GOODS.				
Kersey, all wool, navy blue, 54-inch:				
22-ounce, winter weight	253 yards	\$4.75	58	New York.
16-ounce, summer weight	625 yards	3.60	58	Do.
Corduroy, drab, weight 12½ to 13½ ounces per yard.	710 yards .....	.594	116	Do.
Denim, indigo blue	4,305 yards .....	.253	185	San Francisco.

¹ Only.² Price subject to any change in duty on silk or any Government revenue.³ Sample No. 3.⁴ Sample No. 6.

CLOTHING, ETC.—Continued.

Articles.	Quantity awarded.	Unit price.	No. of con- tractor.	Point of delivery.
CLOTHING, CORDUROY, COTTON, DRAB.				
Coats:				
Sizes 24½ to 28½, chest measure, double-breasted.	2,190.....	\$2.55	142	Chicago.
Sizes 29 to 35, chest measure, single-breasted.	3,605.....	3.22	58	New York.
Sizes 36 to 48, chest measure, single-breasted.	1,330.....	3.64	58	Do.
Trousers:				
Knee trousers, 26 to 28 waist.....	2,601 pairs.....	.87	142	Chicago.
Long trousers—				
24½ to 27 waist, 20 to 26 inseam.....	8,295 pairs.....	1.69	142	Do.
27½ to 32 waist, 27 to 33 inseam.....	4,907 pairs.....	2.02	142	Do.
33 to 46 waist, 31 to 34 inseam.....	2,281 pairs.....	2.27	142	Do.
CLOTHING, COTTON, OLIVE DRAB.				
Coats:				
Sizes 24½ to 28½, chest measure, double-breasted.	411.....	1.42	58	New York.
Sizes 29 to 35, chest measure, single-breasted.	918.....	1.67	58	Do.
Sizes 36 to 48, chest measure, single-breasted.	420.....	1.85	58	Do.
Trousers:				
Knee trousers, 26 to 28 waist.....	566 pairs.....	.65	142	Chicago.
Long trousers—				
24½ to 27 waist, 20 to 26 inseam.....	2,763 pairs.....	1.13	58	New York.
27½ to 32 waist, 27 to 33 inseam.....		1.31	58	Do.
33 to 46 waist, 31 to 34 inseam.....		1.39	58	Do.
CLOTHING, WHITE DUCK.				
Coats, sizes 28 to 48, chest measure.....	735.....	1.09	185	San Francisco.
Aprons.....	868.....	.32	185	Do.
CLOTHING, DUCK, 10-OUNCE.				
Reefer coats, sheep-lined, 32 to 48.....	355.....	6.82	58	New York.
POLICE UNIFORMS, WINTER-FIELD SHADE.				
Coats, men's, single-breasted sack:				
For officers—				
Winter weight.....	9.....	11.60	58	New York.
Summer weight.....	3.....	9.03	58	Do.
For privates—				
Winter weight.....	70.....	11.32	58	Do.
Summer weight.....	17.....	8.76	58	Do.
Trousers, men's:				
For officers—				
Winter weight.....	12 pairs.....	7.90	58	Do.
Summer weight.....	4 pairs.....	5.93	58	Do.
For privates—				
Winter weight.....	97 pairs.....	7.65	58	Do.
Summer weight.....	34 pairs.....	5.68	58	Do.
Waistcoats, men's:				
For officers—				
Winter weight.....	27.....	3.54	58	Do.
Summer weight.....				
For privates—				
Winter weight.....	7.....	2.82	58	Do.
Summer weight.....				
CLOTHING, CORDUROY, DRAB (POLICE UNIFORMS).				
Coats, single-breasted, for officers and privates.	151.....	3.94	58	New York
Trousers, men's, for officers and privates.	212 pairs.....	2.29	142	Chicago.
Waistcoats, men's, for officers and privates.....	106.....	1.41	142	Do.
CLOTHING, OLIVE-DRAB COTTON CLOTH (POLICE UNIFORMS).				
Coats, single-breasted, for officers and privates.	279.....	2.30	58	New York.
Trousers, men's, for officers and privates.	396 pairs.....	1.49	142	Chicago.
Waistcoats, men's, for officers and privates.....	161.....	1.21	142	Do.

! Drill pockets and waistbands as U. S. Army uses.

CLOTHING, ETC.—Continued.

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
CLOTHING (UNIFORMS), WINTER-FIELD SHADE CLOTH.				
Coats, uniform, single-breasted:				
Sizes 24½ to 28½, chest measure—				
Winter weight.....	362.....	\$6.57	58	New York
Summer weight.....	640.....	5.14	58	Do.
Sizes 29 to 35, chest measure—				
Winter weight.....	841.....	8.62	58	Do.
Summer weight.....	1,163.....	6.63	58	Do.
Sizes 36 to 48, chest measure—				
Winter weight.....	364.....	10.19	58	Do.
Summer weight.....	425.....	7.85	58	Do.
Trousers, uniform:				
Knee trousers, 25 to 28 waist—				
Winter weight.....	393 pairs.....	3.06	58	Do.
Summer weight.....	654 pairs.....	2.35	58	Do.
Long trousers—				
24½ to 27 waist, 20 to 26 inseam—				
Winter weight.....	149 pairs.....	5.18	58	Do.
Summer weight.....	212 pairs.....	3.91	58	Do.
27½ to 32 waist, 27 to 33 inseam—				
Winter weight.....	731 pairs.....	6.51	58	Do.
Summer weight.....	1,393 pairs.....	4.88	58	Do.
33 to 46 waist, 31 to 34 inseam—				
Winter weight.....	486 pairs.....	7.30	58	Do.
Summer weight.....	763 pairs.....	5.49	58	Do.
CLOTHING, BLUE DENIM.				
Overalls, with bib:				
24½ to 27 waist, 20 to 26 inseam.....	2,123 pairs.....	.69	185	San Francisco.
27½ to 32 waist, 27 to 33 inseam.....	6,512 pairs.....	1.05	185	Do.
33 to 46 waist, 31 to 34 inseam.....	6,576 pairs.....	1.25	185	Do.
Jumpers:				
Boys', 29 to 35 inches, chest measure.....	1,502.....	.94	185	Do.
Men's, 36 to 48 inches, chest measure.....	2,760.....	1.10	185	Do.
CLOTHING (SHIRTS).				
Shirts:				
Chambray—				
Boys', 11 to 14½ neck measure.....	6,000 ¹.....	.475	222	St. Louis.
	12,367.....	.52	183	Do.
Men's, assorted sizes, 15 to 18 neck measure.....	12,927.....	.495	222	Do.
Fancy flannel—				
Boys', assorted sizes, 11 to 14½ neck measure.....	No award.....			(See Appendix.)
Men's, assorted sizes, 15 to 18 neck measure.....	do.....			Do.
TAILOR'S TRIMMINGS.				
Lining, fancy khaki cloth.....	100 yards.....	.30	58	New York.
Sateen, black, or Italian cloth, 35 to 36 inches.....	1,260 yards.....	.20	241	Do.
Sleeve lining, twilled, 40-inch.....	No award.....			
Drilling, or corset jeans, slate color, 27 to 28 inches.....	do.....			
Halcloth, 16-inch.....	do.....			
Canvas, tailor's unbleached, 22-inch.....	530 yards ¹.....	.25	78	Chicago.
Wadding, cotton, slate color.....	15 dozen ¹.....	.30	78	Do.
Wigan, black.....	120 yards ¹.....	.115	78	Do.
Buttons:				
Overcoat, black vegetable ivory—				
40-line.....	1,075 gross ¹	{ \$ 2.25 \$ 2.375	78	Do.
50-line.....	15 gross ¹	{ \$ 5.375 \$ 5.50	78	Do.
Coat—				
Black vegetable ivory, 30-line.....	163 gross ¹	{ \$.82 \$.94	78	Do.
Bronze, Indian Service, 36-line.....	39 gross.....	\$ 2.31	78	Do.
Vest—				
Bronze, Indian Service, 24-line.....	5 gross.....	\$ 1.50	78	Do.
Black vegetable ivory.....	7 gross.....	{ \$.69 \$.82	78	Do.

¹ Only.² Bulk.³ Carded.

CLOTHING, ETC.—Continued.

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
TAILOR'S TRIMMINGS—Continued.				
Buttons—Continued.				
Trousers, metal—				
Suspender.....	496 gross.....	\$0.105	202	New York.
Fly.....	328 gross.....	.10	202	Do.
Tissue, rubber, tailor's, 1½ and 1½ inches wide.	No award.....			(See Appendix.)
Twist, buttonhole silk, No. 8, 1½-ounce spools.	198 ounces.....	.56	29	Chicago or New York.
Hooks and eyes, trousers.....	No award.....			(See Appendix.)

BOOTS AND SHOES, ETC.

[Bids opened in St. Louis, May 26, 1917.]

Boots, rubber, sizes 5 to 13.....	725 pairs.....	{ ¹ \$1.95 \$2.51}	276	New York.
Overshoes, arctics, 4 buckles:				
Boys', sizes 1 to 6.....	1,834 pairs.....	{ ¹ \$1.38 \$1.43}	276	Do.
Misses', sizes 11 to 2.....	497 pairs.....	1.16	276	Do.
Women's, sizes 3 to 8.....	907 pairs.....	1.41	276	Do.
Men's, sizes 7 to 13.....	994 pairs.....	1.63	276	Do.
Overshoes, rubber, "storm":				
Boys', sizes 1 to 6.....	698 pairs.....	{ ² .43 \$.52}	276	Do.
Misses', sizes 11 to 2.....	462 pairs.....	.40	276	Do.
Women's, sizes 3 to 8.....	832 pairs.....	.47	276	Do.
Men's, sizes 7 to 13.....	331 pairs.....	.62	276	Do.
Shoes (for dry climates):				
Little gents', sizes 9 to 12.....	770 pairs ³	1.82	74	St. Louis.
Youths', sizes 12½ to 2.....	3,821 pairs ⁴	2.09	74	Do.
Boys', sizes 2½ to 5½.....	10,558 pairs ⁴	2.31	74	Do.
Men's, sizes 6 to 13.....	6,132 pairs ⁴	2.71	74	Do.
Children's, sizes 5 to 8.....	168 pairs ⁴	1.30	162	Do.
Children's, sizes 8½ to 11½.....	347 pairs ⁴	1.54	162	Do.
Misses', sizes 12 to 2.....	6,287 pairs ⁴	1.84	162	Do.
Women's, sizes 2½ to 8.....	9,983 pairs ⁴	2.14	162	Do.
Shoes (for wet climates):				
Little gents', sizes 9 to 12.....	263 pairs ⁴	1.85	74	Do.
Youths', sizes 12½ to 2.....	2,675 pairs ⁴	2.12	74	Do.
Boys', sizes 2½ to 5½.....	7,067 pairs ⁴	2.34	74	Do.
Men's, sizes 6 to 13.....	3,816 pairs ⁴	2.71	74	Do.
Children's—				
Sizes 5 to 8.....	4 pairs ⁴	1.35	162	Do.
Sizes 8½ to 11½.....	471 pairs ⁴	1.59	162	Do.
Misses', sizes 12 to 2.....	3,043 pairs ⁴	1.89	162	Do.
Women's, sizes 2½ to 8.....	7,084 pairs ⁴	2.19	162	Do.

¹ Sizes 5 and 6.² Sizes 7 to 13.³ Sizes 11 to 2.⁴ Sizes 3 to 6.⁵ Only.

CHINAWARE, ENAMELED WARE, LAMPS, ETC.

Articles.	Bids opened in San Francisco Apr. 2, 1917.					Bids opened in Chicago May 2, 1917.				
	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.		
White enameled ware, as follows:	No award.									
Chambers, with covers.....										
Pitchers, water—										
2-quart.....	134	\$0.67	237	San Francisco.	89 ¹	\$0.62	153	Chicago.		
3-quart.....	300 ¹	.80	237	do.	1,149 ¹	.50	153	Do.		
Pitchers, ashbowl, 5-quart.....	92	.98	237	do.	230 ¹	1.15	153	Do.		
Washbowl.....										
154 inches in diameter.....	221 ¹	.58 ¹	113	do.	195 ¹	.60	153	Do.		
154 inches in diameter.....	181 ¹	.50 ¹	113	do.	151 ¹	.40	153	Do.		
12 inches in diameter.....	11 ¹	.35	113	do.	101 ¹	.33	153	Do.		
China ware, vitrified, hotel, as follows:										
Bowls, soup—										
1-pint.....	71 dozen ¹	\$2.00	255	St. Louis.	120 dozen ¹	2.50	255	St. Louis.		
14-pint.....	64 dozen ¹	\$2.40	255	do.	62 dozen ¹	3.00	255	Do.		
Cups, coffee, with handle.....	424 dozen ¹	\$1.15	255	do.	550 dozen ¹	1.58	255	Do.		
Dishes, meat—										
About 15 inches.....	324 ¹	\$.75	255	do.	264 ¹	.94	255	Do.		
About 17 inches.....	58 ¹	\$1.17	255	do.	31 ¹	1.45 ¹	255	Do.		
Dishes, vegetable, oval, about 12 inches, without covers.....	844 ¹	\$1.00	255	do.	727	1.00	255	Do.		
Pitchers—										
Pint.....	71 ¹	\$.21 ¹	255	do.	154 ¹	.28 ¹	255	Do.		
Quart.....	262 ¹	\$.33 ¹	255	do.	370 ¹	.36 ¹	255	Do.		
Plates—										
Dinner, about 94 inches.....	205 dozen ¹	\$1.70	255	do.	330 dozen ¹	2.13	255	Do.		
Tea, about 74 inches.....	27 dozen ¹	\$1.20	255	do.	90 dozen ¹	1.63	255	Do.		
Sauce, about 64 inches.....	239 dozen ¹	\$1.00	255	do.	240 dozen ¹	1.34	255	Do.		
Soup, about 9 inches.....	31 dozen.....	\$1.66	255	do.	33 dozen ¹	2.08	255	Do.		
Sauces, coffee.....	307 dozen.....	\$1.00	255	do.	235 dozen ¹	1.34	255	Do.		
Burners, lamp, heavy, "Sun":										
No. 1.....	1 ¹ dozen.....	1.00	308	San Francisco.	2 ¹ dozen ¹	.96	153	Chicago.		
No. 2.....	18 dozen.....	1.15	237	do.	45 dozen ¹	1.15	153	Do.		
Crockers, with covers, stoneware; acid fruit glaze lining:										
1-gallon.....	28 ¹	.16	113	do.	104 ¹	.20	285	St. Louis.		
2-gallon.....	52 ¹	.32	113	do.	179 ¹	.30	285	Do.		
3-gallon.....	58 ¹	.40	285	St. Louis.	257 ¹	.40	285	Do.		

¹ Delivery 4 months' time instead of 60 days.

¹ Only
² Pitchers, 2-quart, selected to fill this item.

CHINAWARE, ENAMELED WARE, LAMPS, ETC.—Continued.

Articles.	Bids opened in San Francisco Apr. 2, 1917.				Bids opened in Chicago May 2, 1917.			
	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
Cruets, vinegar, glass.	5 dozen 1	\$1.15	285	St. Louis.	37 dozen.	\$1.08	33	St. Louis.
Globes:								
Lanterns, tubular, safety No. 0.	17 dozen 1	.80	113	San Francisco.	36 dozen.	.66	33	Do.
Tubular street lamps, No. 3, standard.	None wanted.				16.	.40	33	Do.
Jars, fruit, complete:								
1-quart.	2 dozen 1	.45	285	St. Louis.	90 dozen.	.47	33	Do.
2-quart.	78 dozen 1	.65	285	do.	141 dozen.	.69	33	Do.
Rubbers, for fruit jars:								
For 1-quart.	57 dozen.	.05	113	San Francisco.	133 dozen.	.05	33	Do.
For 2-quart.	140 dozen.	.05	113	do.	235 dozen.	.05	33	Do.
Tops for fruit jars:								
For 1-quart.	43 dozen 1	.22 $\frac{1}{2}$	113	do.	46 dozen.	.204	33	Do.
For 2-quart.	83 dozen 1	.22 $\frac{1}{2}$	113	do.	187 dozen.	.204	33	Do.
Lamp shades:								
Shades for Mammoth hanging lamp, 20 inches.	None wanted.							
Lamps:								
Porcelain, 7-inch (for students' lamps).	18 1	.13	285	St. Louis.	21 1	.15	285	Do.
Bracket, heavy metal, with cup and thumb-screw for reflector, complete, with glass fount, No. 2 sun-burner and chimney, and 8-inch glass reflector.	61 1	.60	285	do.	373 1	.60	285	Do.
Hall, hanging, extension, complete, with 10-inch frosted globe, No. 2 fount, No. 2 sun-burner and chimney.	None wanted.				No award.			
Table, No. 4, B and H Radiant, nickel-plated, complete, with 10-inch opal dome shade, holder, burner, and chimney.	No award.				198 1	2.30	153	Chicago.
Students' "Perfection," No. 1, complete, with opal shade and chimney.	do.				No award.			
Hanging, Mammoth, No. 5 B and H Radiant, complete—								
With 30-inch metal shade, burner and chimney.	None wanted.							
With 14-inch opal dome shade, burner, and chimney.	do.				7 1	3.50	153	Do.
Street, tubular, globe, No. 3, with burner complete.	No award.				13 1	4.00	153	Do.
					7.	3.75	33	St. Louis.

Lamp chimneys:
Sun-burner—

No. 1.....	1 dozen ¹	1.23	113	San Francisco.	3 dozen.....	.92	33	Do.
No. 2.....	4 dozen ¹	1.35	113	do.....	164 dozen.....	.96	33	Do.
For "Perfection," No. 1, students' lamps.	No award.				130 dozen ¹.....	.80	153	Chicago.
For No. 96 B and H Mammoth lamps.	None wanted.				6 dozen.....	2.10	33	St. Louis.
For No. 2 B and H lamps.	19 dozen.....	1.10	250	San Francisco.	31 dozen.....	1.20	33	Do.
Mammoth, for No. 5 B and H Radiant lamps.	4 dozen ¹	2.47	238	St. Louis.	No award.			
For No. 4 B and H Radiant lamps.	No award.				119 dozen.....	1.08	33	Do.
Lamp wicks:								
No. 0.....	2 dozen ¹.....	.08	113	San Francisco.	12 dozen.....	.03	33	Do.
No. 1.....	do.....	.0875	113	do.....	do.....	.0375	33	Do.
No. 2.....	37 dozen ¹.....	.063	113	do.....	189 dozen.....	.054	33	Do.
For "Perfection," No. 1, students' lamp.	No award.				No award.			
For tubular street lamps, No. 3.....	1 dozen.....	.12	14	San Francisco.	6 dozen ¹.....	.11	153	Chicago.
For No. 96 B and H Mammoth lamps.	do.....	1.50	14	do.....	2 dozen.....	.88	33	St. Louis.
For No. 2 B and H lamps.	No award.				25 dozen.....	.45	33	Do.
For No. 5 B and H Radiant lamps.	do.....				No award.			
For No. 4 B and H Radiant lamps.	do.....				do.....			
Lanterns, tubular, safety.....	77 ¹.....	.364	113	San Francisco.	341.....	.364	33	Do.
Pepper sprinklers, glass.....	38 dozen ¹.....	.55	285	St. Louis.	189 dozen ¹.....	.50	255	Do.
Pitchers, strap, pint, glass, removable metal top.	31 dozen ¹	2.40	285	do.....	93 dozen ¹	2.00	255	Do.
Reflectors, lamp, to match bracket lamps, 8-inch, glass.	No award.				75 ¹.....	.32	153	Chicago.
Tumbler, glass.....	164 dozen ¹	2.45	235	St. Louis.	538 dozen ¹.....	.45	255	St. Louis.

FURNITURE AND WOODENWARE.

Articles.	Bids opened in San Francisco Apr. 2, 1917.		Bids opened in St. Louis May 25, 1917.	
	No award.	(See Appendix.)	No award.	(See Appendix.)
Baskets:				
Clothes, large.....	No award.		No award.	
Measuring—				
1-bushel.....	4.....	\$0.914	33 ¹	\$0.47
Bedsteads, iron, double, with iron feet, white enameled.....	69.....	8.40	73.....	.75
Bedsteads, iron, single, with iron feet, height from floor 37 inches, with rod across foot piece for a clothes hanger, white enameled.....	47.....	7.00	164 ¹	7.75
Bedsteads, iron, single, with iron feet, height from floor 17 inches, with rod across foot piece for a clothes hanger, white enameled.....	28.....	7.00	208 ¹	6.15
			220.....	6.15
				82

¹ Only.

² Delivery in 4 months, in lieu of 60 days.

FURNITURE AND WOODENWARE—Continued.

Articles.	Bids opened in San Francisco Apr. 2, 1917.				Bids opened in Chicago May 2, 1917.			
	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
Bedsteads, iron, single, with casters, height from floor 27 inches, with rod across foot piece for a clothes hanger, white enamel.	82.	\$7.10	224	San Francisco.	42.	\$6.15	82	St. Louis.
Bedsteads, iron, single, with casters, height from floor 17 inches, with rod across foot piece for a clothes hanger, white enamel.	16.	7.10	224	do.	46.	6.15	82	Do.
Extra springs for—	No award.							
Double.	do.							
Single.								
Bowls, wooden, chopping, round:								
14-inch.	31.	.4114	112	San Francisco.	321.	.30	63	Do.
17-inch.	14.	.915	112	do.	431.	.71	63	Do.
Brooms.	522 dozen.	5.64	244	Wichita, Kans.	901 dozen.	6.50	227	Do.
Bushes.	No award.				106 dozen.	2.26	227	Do.
Brush, 6-row, 10-inch.	77 dozen.	1.03	67	St. Louis.	225 dozen.	1.03	67	Do.
Shoes.								
Dauber.	47 dozen.	.70	67	do.	81 dozen.	.75	67	Do.
Polishing.	42 dozen.	1.50	67	do.	98 dozen.	1.50	67	Do.
Stove, 6-row, 10-inch.	6 dozen.	1.00	67	do.	31 dozen.	1.05	67	Do.
Floor, 16 inches wide, with long handle.	251.	.7794	135	Omaha.	447.	.70	153	Chicago.
Buckets, well, oak.	No award.				61.	.38	153	Do.
Bureaus, with glass.	651.	9.50	206	San Francisco.	123.	7.25	260	St. Louis.
Chairs:								
Hickory or other hardwood, for outside use.	(*)				(*)			
Typewriter, oak.	None wanted.				81.	4.75	146	Do.
Dining, oak.	2121.	1.875	114	San Francisco.	529.	1.85	57	Do.
Rocking, oak, for inside use.	1311.	3.78	15	do.	278.	2.28	115	Do.
Rocking, hickory or other hardwood, for outside use.	(*)				(*)			
Solid oak, long post, wood seat.	No award.				21 dozen1.	16.32	146	St. Louis.
Morris, hickory or other hardwood, for outside use.	(*)				(*)			
Wood, bow back.	30 dozen.	9.96	57	St. Louis.	51 dozen.	47.80	260	Do.
Office, revolving and tilting.	No award.				19.	6.25	57	Do.
Chaffineries, oak, without glass.	901.	7.15	206	San Francisco.	841.	7.00	146	Do.
Churns, barrel, revolving, large enough to churn freely 5 gallons.	6.	4.25	14	do.	191.	2.58	153	Chicago.

Clocks, 8-day	No award.	35	14	San Francisco	98 1/2	26,000 feet.	3.82	153	Do.
Clotheslines, galvanized wire, in lengths of 100 feet, per 100 feet.	100 gross 1	.40	113	do.	481 gross.	169 dozen 1	.28	116	St. Louis.
Clothespins, spring.	101 gross 1	.40	117	do.	169 dozen 1				Do.
Coat hangers, heavy wire.	40 dozen.	.25	211	do.			.09 1/2	153	Chicago.
Coat hangers, heavy wire.	5 1/2	17.75	206	do.	21 1/2		12.65	146	St. Louis.
Coat hangers, heavy wire.	6 1/2	11.75	206	do.	8 1/2		7.00	146	Do.
Coat hangers, heavy wire.	40 dozen.	2.10	67	St. Louis	No award				
Coat hangers, heavy wire.	211 square yards.	.99	281	San Francisco	do.				
Coat hangers, heavy wire.	280 yards.	.86	243	do.	142 yards 1		1.24	206	Omaha.
Coat hangers, heavy wire.	350 yards 1	.53	140	St. Louis	No award				(See appendix.)
Cocoa, reversible, 36 inches wide, weight per yard, 42 ounces.	No award.				No award				
Cocoa, reversible, 36 inches wide, weight per yard, 42 ounces.	31 1/2 do.	.75	117	San Francisco	143 1/2		.59	153	Chicago.
Cocoa, reversible, 36 inches wide, weight per yard, 42 ounces.	92	5.45	60	do.	316 1/2		5.30	136	St. Louis.
Cocoa, reversible, 36 inches wide, weight per yard, 42 ounces.	443 1/2	4.50	60	do.	1,195		4.15	200	Do.
Cocoa, reversible, 36 inches wide, weight per yard, 42 ounces.	No award				3 1/2		.22	153	Chicago.
Cocoa, reversible, 36 inches wide, weight per yard, 42 ounces.	do				9 1/2		.24	153	Do.
Cocoa, reversible, 36 inches wide, weight per yard, 42 ounces.	do				No award				
Cocoa, reversible, 36 inches wide, weight per yard, 42 ounces.	90 dozen.	2.00	256	(b)	102		1.20	33	St. Louis.
Cocoa, reversible, 36 inches wide, weight per yard, 42 ounces.	None wanted.				49 1/2		.56	153	Chicago.
Cocoa, reversible, 36 inches wide, weight per yard, 42 ounces.	None wanted.				1,090		.80	18	Do.
Cocoa, reversible, 36 inches wide, weight per yard, 42 ounces.	55 1/2	.15	113	San Francisco	123 1/2		.10	153	Do.
Cocoa, reversible, 36 inches wide, weight per yard, 42 ounces.	490 pounds.	.25	14	do.	1,389 pounds.		.23	209	Peoria, Ill.
Cocoa, reversible, 36 inches wide, weight per yard, 42 ounces.	1,150 pounds.	.25	14	do.	3,445 pounds.		.25	209	Do.
Cocoa, reversible, 36 inches wide, weight per yard, 42 ounces.	625 pounds.	.24	14	do.	2,220 pounds.		.22	209	Do.
Cocoa, reversible, 36 inches wide, weight per yard, 42 ounces.	965 pounds.	.24	14	do.	3,110 pounds.		.22	209	Do.
Cocoa, reversible, 36 inches wide, weight per yard, 42 ounces.	190 pounds.	.24	14	do.	3,180 pounds.		.22	209	Do.
Cocoa, reversible, 36 inches wide, weight per yard, 42 ounces.	None.	.24	14	do.	2,450 pounds.		.22	209	Do.
Cocoa, reversible, 36 inches wide, weight per yard, 42 ounces.	No award.				No award.				
Cocoa, reversible, 36 inches wide, weight per yard, 42 ounces.	861 pounds.	.32	14	San Francisco	1,064 pounds.		.32	153	Chicago.
Cocoa, reversible, 36 inches wide, weight per yard, 42 ounces.	No award.				71 1/2 dozen.		7.80	146	St. Louis.
Cocoa, reversible, 36 inches wide, weight per yard, 42 ounces.	7 1/2	5.25	114	San Francisco	8 1/2		3.40	146	Do.
Cocoa, reversible, 36 inches wide, weight per yard, 42 ounces.	37 1/2	6.75	206	do.	49 1/2		7.25	146	Do.
Cocoa, reversible, 36 inches wide, weight per yard, 42 ounces.	No award.				38 1/2		3.55	146	Do.
Cocoa, reversible, 36 inches wide, weight per yard, 42 ounces.	do.				35 1/2		3.20	146	Do.

¹ Only.
² For commercial packing deduct 30 cents per dozen.
³ In shipments of 150 pounds or more f. o. b. Chicago; smaller shipments f. o. b. Freeport, Ill.

⁴ For commercial packing deduct 50 cents each.
⁵ Eliminated for 1913.

FURNITURE AND WOODENWARE—Continued.

Articles.	Bids opened in San Francisco Apr. 2, 1917.				Bids opened in Chicago May 2, 1917.			
	Quantity awarded.	Unit price.	No. of contract.	Point of delivery.	Quantity awarded.	Unit price.	No. of contract.	Point of delivery.
Washboards, double, zinc:								
"family size," 10 by 11½ inches.	136 1	\$0.229½	113	San Francisco.	281 1	\$0.45	153	Chicago.
"laundry size," 14½ by 13 inches.	162 1	.45	113	do.	172 1	.68	153	Do.
Washstands, wood.	No award.				110	4.25	148	St. Louis.
Washing machines, for clothes, extra heavy.	No award.				62 1	6.25	153	Chicago.
Washing machines, standard.	do.				20 1	.66	153	Do.
20 inches in diameter by 9½ inches deep, inside measurement.	do.				38 1	.80	153	Do.
23 inches in diameter by 10½ inches deep, inside measurement.	do.				8 1	.97	153	Do.
25 inches in diameter by 11½ inches deep, inside measurement.	do.				98 1	3.33	153	Do.
Wringers, clothes, rolls 12 by 1½ inches.	23 1	3.46	113	San Francisco.				

HARNES, LEATHER, SHOE FINDINGS, SADDLERY, ETC.

Awl huffs, patent:	4 dozen	\$0.74	83	San Francisco.	8 dozen 1	\$0.60	153	Chicago.
Pegging.								
Sewing.	2 dozen	.80	14	do.	28 dozen	.48	153	Do.
Harness, white, common, patent screw.	5 dozen	.84	83	do.	(?)			
Shoemaker's.								
Awls, assorted:	18 dozen	.095	83	do.	25 dozen	.12	180	Burlington, Iowa, or St. Louis.
Patent, pegging.								
Regular, harness, sewing.	17 dozen	.25	149	do.	46 dozen	.1475	11	Atchison, Kans.
Patent, sewing, regular, shoemaker's, bent, No. 9.	14 dozen	.28	83	do.	62 dozen	.135	180	Burlington, Iowa, or St. Louis.
Round, pad, shouldered, with riveted handles.	None wanted.				1 dozen	4.25	32	St. Louis.
Saddler's, collar, with riveted handles.	do.				2 dozen	3.55	32	Do.
Bits, loose ring, japanned, 2½-inch, heavy mouthpiece:	No award.				22 dozen	.85	180	Burlington, Iowa, or St. Louis.
Jointed.					8 dozen 1	.80	43	St. Louis.
Stiff.	do.							

Blacking, shoe.....	6,000 boxes	.081	68	San Francisco	6,722 boxes ¹	.031	133	Chicago.
Paste, polish, for shoes.....	1,900 boxes	.03566	287	do.	1,258 boxes	.064	50	St Louis.
Blankets, horse:					(3,076 boxes)	.024	133	Chicago.
All wool.....	No award. (See Appendix.)							
Cotton and wool, mixed.....	4.....	2.00	149	San Francisco	29.....	1.85	182	Omaha.
Bridles, riding.....	176.....	.40	108	do.	305.....	.53	180	Burlington, Iowa, or St. Louis.
Brooms, stable, with handles.....	108.....	.40	67	St. Louis	313.....	.37	180	Do.
Brushes, horse, leather backs.....	No award				9 gross.....	1.10	180	Do.
Buckles, bar rein, with roller, japanned:	1-inch.....				8 gross.....	1.47	180	Do.
1-inch.....	do.....				9 gross.....	1.10	180	Do.
1-inch.....	do.....				14 gross.....	2.13	180	Do.
1-inch.....	do.....				4 gross.....	4.80	32	St. Louis.
Buckles, barrel, roller, girth, japanned, 1½-inch.....	do.....					.67	180	Burlington, Iowa, or St. Louis.
Buckles, roller, harness, japanned:	1-inch.....				do.....	.79	180	Do.
1-inch.....	do.....				6 gross.....	.95	180	Do.
1-inch.....	do.....				8 gross.....	1.10	180	Do.
1-inch.....	do.....				7 gross.....	1.23	180	Do.
1-inch.....	do.....				do.....	1.90	180	Do.
1-inch.....	do.....				6 gross.....	2.26	180	Do.
1-inch.....	do.....				3 gross.....	2.75	180	Do.
2-inch.....	do.....					3.21	180	Do.
Buckles, roller, trace, japanned:	1-inch.....				2 dozen.....	.45	32	St. Louis.
1-inch.....	do.....				5 dozen.....	.50	32	Do.
Buckles, trace, 3-loop, Champion, japanned:	1-inch.....				1 dozen pairs.....	.58	32	Do.
1-inch.....	do.....				6 dozen pairs.....	.66	32	Do.
1-inch.....	do.....				1 dozen pairs.....	.76	32	Do.
1-inch.....	do.....				6 dozen pairs.....	.95	32	Do.
2-inch.....	do.....	.94	83	San Francisco	15 dozen.....	.82	133	Chicago.
Cement, leather, 2-ounce bottles.....	5 dozen.....				96.....	.21	180	Burlington, Iowa, or St. Louis.
Cinchas, good quality web; 3-inch, with center brace of hair.....	No award					.21	11	Atchison, Kans.
Clips, mane, team, polished, 3-inch, 2 holes, 4½ inches long, wrought iron.....	do.....				47 dozen.....			
Cockeyes, triangular, with roller, japanned:	do.....				8 dozen.....	.32	11	Do.
1-inch.....	do.....				35 dozen.....	.375	11	Do.
1-inch.....	do.....				23 dozen.....	.43	180	Burlington, Iowa, or St. Louis.
1-inch.....	do.....				21 dozen.....	.56	180	Do.
2-inch.....	do.....							

¹ A wls, sewing, harness, selected to fill this item.

¹ Only.

HARNES, LEATHER, SHOE FINDINGS, SADDLERY, ETC.—Continued.

Articles.	Bids opened in San Francisco Apr. 2, 1917.				Bids opened in Chicago May 2, 1917.			
	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
Collars, leather: Horse—								
17 to 19 inches, by half inches.	None wanted.				178 1/2	\$3.38	32	St. Louis.
19 1/2 to 21 inches, by half inches.	do.				73	3.49	118	Do.
21 1/2 to 24 inches, by half inches.	do.				67 1/2	3.38	32	Do.
Mule, 15 to 16 1/2 inches, by half inches.	do.				80	3.67	118	Do.
Currycombs.	9 dozen 1/2	\$1.53	113	San Francisco.	48 1/2	3.70	32	Do.
	do.				1	4.13	118	Do.
Halters, all leather.	No award.				16	3.38	32	Do.
Hair, gray goat.	None wanted.				34 dozen	1.30	180	Burlington, Iowa, or St. Louis.
Hames, No. 6, Concord, size 18 to 22 inches, wood, high top, solid steel backs, 1-inch holes, horse back plates and trimmings, as follows:					224	2.03	180	Do.
Boots.					5 pounds.	.09	180	Do.
Hook, steel, and ring.	17 pairs.	\$14.50	149	San Francisco.				
Choke.	No award.				89 pairs	.80	118	St. Louis.
Harness (or staple).	do.				35	.76	118	Do.
Double, complete, Concord hames—								
With breeching.	do.				232 sets	45.00	118	Do.
Without breeching.	do.				40 sets	40.15	118	Do.
Plow, double, with beekband, hip straps, and collars, Concord hames.	do.				{ 25.02	{		{ Burlington, Iowa, or St. Louis.
Hooks, hame, double repair (weight 4 pounds per dozen).	do.				96	22.30	180	Do.
Knives:					16 dozen	.35	180	
Draw gauge, brass, etc.	do.							
Head, 4 1/2-inch, oval handle.	6	1.00	149	San Francisco.	13	1.55	11	Atchison, Kans.
Round, 6 1/2-inch, oval handle.	None wanted.				2	.62	180	Burlington, Iowa, or St. Louis.
Shoe, square point, paring, 4-inch blade.	10 dozen	.99	83	San Francisco.	4	1.32	118	St. Louis.
Splitting, 10-inch, iron frame.	No award. (See Appendix.)				No award. (See Appendix.)			
Straight harness maker's.	(⁹)				7 dozen 1/2			Do.
Layer crossers, octagon, Nos. 0, 1, 2, 3, 4, 5.	None wanted.				11	.95	32	Burlington, Iowa, or St. Louis.
						.49	180	

HARNES, LEATHER, SHOE FINDINGS, SADDLERY, ETC.—Continued.

Articles.	Bids opened in San Francisco Apr. 2, 1917.				Bids opened in Chicago May 2, 1917.			
	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
Rings, harness, japanned:								
1-inch.....	None wanted.				7 dozen.....	\$0.06	118	St. Louis.
1-inch.....	do.				8 dozen.....	.07	32	Do.
1-inch.....	No award.				28 dozen.....	.08	32	Do.
1-inch, heavy.....	None wanted.				13 dozen.....	.11	118	Do.
Rings, breeding, japanned:								
1-inch.....	6 dozen.....	\$0.15	149	San Francisco.	10 dozen.....	.11	118	Do.
1-inch.....	16 dozen.....	.18	149	do.	164 dozen.....	.15	118	Do.
Roadsters, japanned, nubia, or imitation rubber:								
1-inch.....	None wanted.				27 dozen.....	.16	32	Do.
1-inch.....	do.				83 dozen.....	.17	180	Burlington, Iowa, or St. Louis.
Rules 3-foot, straight, boxwood.....	No award.				30 ¹.....	.055	153	Chicago.
Saddles, riding, with horn, "Texas," 30 pounds.....	do.				9.....	34.03	180	Burlington, Iowa, or St. Louis.
Sheepskins, for shoe linings, pink and russet.....	None wanted.				{14 dozen ¹.....	.16	50	St. Louis.
Slides, breast strap, and snaps, combined, japanned, nubia, or imitation rubber:					{24 dozen.....	24.50		
1-inch.....	No award.				18 dozen.....	1.68	180	Burlington, Iowa, or St. Louis.
1-inch.....	None wanted.				4 dozen.....	1.82	180	Do.
1-inch.....	No award.				28 dozen.....	1.96	180	Do.
Snaps, harness, japanned, nubia, or imitation rubber:								
1-inch.....	do.				5 gross.....	3.02	180	Do.
1-inch.....	do.				do.	3.02	180	Do.
1-inch.....	do.				9 gross.....	3.02	180	Do.
1-inch.....	do.				3 gross.....	5.16	180	Do.
1-inch.....	do.				12 gross.....	5.74	180	Do.
Spots, silvered, 1-inch:								
Standard.....	None wanted.				120 dozen.....	.06	32	St. Louis.
Squares, hip strap, X C, 1-inch.....	No award.				12 dozen.....	.10	118	Do.
Staples, hame, with burrs, polished.....	do.				50 dozen.....	.20	32	Do.
Stands, iron, counter, regular, 4 lists, 23 inches high.....	do.				33 ¹.....	.92	153	Chicago.
Stirrups, solid bent wood, width of tread 5 inches.....	None wanted.				33 pairs.....	.17	11	Atchison, Kans.
Stitching horses, 5-inch jaws.....	No award.				11.....	3.00	180	Burlington, Iowa, or St. Louis.
Stones, sand, per pound.....	None wanted.				No award.....			

	No award			23 ¹ (66)		Chicago, St. Louis.
Burdies, 3 1/2 inches wide, 6 feet 9 inches long...	No award					153
Swivels, gag, japanned, to buckle:						118
1-inch.....	None wanted.					32
1 1/2-inch.....	do.			1 dozen.....		32
Tacks, shoe:						Do.
1-ounce.....	6 pounds.....	83	San Francisco.	39 pounds.....		118
2-ounce.....	10 pounds.....	83	do.	56 pounds.....		Do.
3-ounce.....	5 pounds.....	83	do.	67 pounds.....		118
Taps, heel:						Do.
Small size.....	27.....	231	San Francisco or Ben- dia, Cal.	71 bundles.....		83
Medium size.....		231	do.	94 bundles.....		83
Large size.....		231	do.	53 bundles.....		83
Taps, sole:						Do.
Small size.....	33 bundles.....	83	San Francisco.	140 bundles.....		83
Medium size.....	37 bundles.....	83	do.	157 bundles.....		83
Large size.....	19 bundles.....	83	do.	98 bundles.....		83
Tarrets, band, X C:						Do.
1 1/2-inch.....	None wanted.			1 dozen.....		180
1 1/4-inch.....	do.			4 dozen.....		Burlington, Iowa, or St. Louis.
Thread:						Do.
Harness, No. 3, black.	15 pounds.....	68	San Francisco.	25 pounds.....		180
Shoe, white—						Do.
No. 3.....	12 pounds.....	83	do.	22 pounds.....		180
No. 10.....	18 pounds.....	83	do.	67 pounds.....		180
Linen, black, machine—						Do.
No. 18.....	3 dozen spools.....	68	do.	7 dozen spools ¹		280
No. 40.....	1 dozen spools.....	68	do.	8 dozen spools ¹		340
No. 50.....	1 dozen spools.....	68	do.	1 dozen spools ¹		32
Tools, claw, with riveted handle.	No award			40.....		118
Truss carriers, japanned:						Do.
1 1/2-inch.....	do.			7 dozen.....		32
1 1/4-inch.....	do.			10 dozen.....		32
War, small ball, per 100 balls, summer and winter temperatures:						Do.
Bedder 5, black.....	685 balls.....	83	San Francisco.	1,785.....		180
Shoemaker's, brown.....						Burlington, Iowa, or St. Louis.
Wheels, overstretch, stationary, with octagon carriage Nos. 6, 7, 8, 10, 12 and 14.	374 balls.....	83	do.	762.....		118
Winkers, 1-inch, sensibile, 2 seams, patent leather	No award			17.....		11
	None wanted.			8 dozen pairs ¹		32

¹ Russel, per dozen.

¹ Pink, per square foot.

¹ Only.

AGRICULTURAL IMPLEMENTS, ETC.

Articles.	Bids opened in San Francisco Apr. 2, 1917.				Bids opened in Chicago May 2, 1917.			
	Quantity awarded.	Unit price.	No of contractor.	Point of delivery.	Quantity awarded.	Unit price.	No of contractor.	Point of delivery.
Augers, post-hole, 9-inch.	3	\$0.70	14	San Francisco	15 ¹	\$0.50	153	Chicago.
Axle grease.	134 dozen.	{ 2.60 2.04	85	do.	176 dozen.	.043	1	Philadelphia.
Bags, cotton, for flour:								
35-pound.	No award				5,100.	.1225	76	New York.
40-pound.	do.				12,060.	.085	36	St. Louis.
45-pound.	do.				2,325.	.06	76	New York.
50-pound.	do.				1,042 ¹ .	.30	86	St. Louis.
Bags, grain, seamless, 2½ bushel, not less than 12 pounds per dozen.	2,574.	.09	298	Portland, Oreg.	15,524 ¹ .	.115	127	San Francisco.
Bags, grain, burlap, 12-ounce.	None wanted.				41.	.625	153	Chicago.
Bags, grain, burlap, 12-ounce.	1	.85	14	San Francisco	12 ¹ .	.56	153	Do.
Corn planters, hand.	None wanted.				4.	6.40	65	Do.
Corn shadlers, hand, single feed, medium size.								
Cultivators:								
Horse, iron frame, 5 blades, with wheel.	do.				102.	4.25	226	Rock Island, Ill.
Riding, 2-horse.	do.				7.	21.75	226	Do.
Diggers, post-hole.	28.	.90	14	San Francisco	46.	.50	153	Chicago.
Forks:								
Hay, c. s., 4 oval tines, 5½-foot handles, strapped ferrule.	No award				59 dozen ¹ .	5.85	153	Do.
Manure, c. s., 5 oval tines, strapped ferrule—	do.							
Long handles.	do.				54 dozen ¹ .	7.25	153	Do.
Short D handles.	do.				12 dozen ¹ .	7.63	153	Do.
Handles:								
Hayfork, 5½-foot, crooked shank, without ferrule.	None wanted.				94 dozen ¹ .	1.60	153	Do.
Plow, 1½ by 2½ inches by 5 feet—	do.							
Left-hand, straight.	do.				31 dozen.	1.70	181	St. Louis.
Right-hand, double bend, for mold-board.	do.				22 dozen.	2.00	181	Do.
Shovel—								
Long.	do.				83 dozen ¹ .	1.54	153	Chicago.
Short, D.	do.				26 dozen ¹ .	2.05	153	Do.
Spade, D.	do.				10 dozen ¹ .	1.75	153	Do.
Spade, long	do.				9 dozen ¹ .	1.45	153	Do.
Harrows:								
60 teeth, 1 by 8 inches steel, with drawbar and clavies.	do.				295.	9.00	282	Springfield, Ill.

[illegible]

* With tongue and transport trucks.
 * Choice of Champion, Deering, McCormick, Milwaukee, or Osborn.
 † Milwaukee, gear drive.
 ‡ Steel beam.

- 1 Only.
- 2 Per dozen in 1-pound tins.
- 3 Per pound in 5-pound buckets.
- 4 With tongue truck.

AGRICULTURAL IMPLEMENTS, ETC.—Continued.

Articles.	Bids opened in San Francisco Apr. 2, 1917.				Bids opened in Chicago May 2, 1917.			
	Quantity awarded.	Unit price.	Num-ber of contrac-tor.	Point of delivery.	Quantity awarded.	Unit price.	Num-ber of contrac-tor.	Point of delivery.
Plow beams:								
For 8-inch plow, 5 feet long.....	None wanted.				15.....	\$0.60	151	St. Louis.
For 10-inch plow, 6½ feet long.....	do.				17.....	.62	151	Do.
For 12-inch plow, 6 feet long.....	do.				28.....	.72	151	Do.
For 14-inch "breaker" plow, 6½ feet long.....	do.				79.....	.82	151	Do.
For 12-inch "breaker" plow, 7 feet long.....	do.				18.....	.86	151	Do.
For 14-inch "breaker" plow, 7 feet long.....	do.				14.....	1.00	151	Do.
Rakes:								
Hay, sulky, 8-foot, hand-dump—	do.				No award. (See Appendix.)			
20 teeth.....	do.				do.			
28 teeth.....	do.				No award			
32 teeth.....	do.				4.....			
Hay, sulky, 10-foot, self-dump—	do.				11.....	\$22.65	65	Chicago.
36 teeth.....	do.				No award	23.76	65	Do.
32 teeth.....	do.				do.			
Hay, wood, 12 teeth, 2 bows.....	No award				do.			
Wrought steel, handled, 12 teeth.....	32 dozen.	\$3.60	308	San Francisco.	do.			
Scoops, grain, medium quality, No. 4.....	21.....	.82	14	do.	do.			
Scrapers:								
Drag, 2-horse, with runners.....	No award				70.....	5.76	153	Sidney, Ohio.
Fresno, with runners (without wheels)—								
34-foot.....	4.....	18.00	25	Los Angeles.....	1.....	16.00	153	Do.
4-foot.....	4.....	18.75	25	do.	3.....	17.00	153	Do.
6-foot.....	3.....	19.50	25	do.	2.....	18.00	153	Do.
Shovels, steel:								
Coal, D handle.....	No award				357.....	.60	153	Chicago.
Long handle, No. 2, round stiff point.....	578.....	.79	14	San Francisco.	300.....	.65½	153	Do.
D handle, No. 2, square point.....	87.....	.74	14	do.	156.....	.65½	153	Do.
Settles, No. 3, grain.....	3.....	.20	308	do.	No award			
Boyles:								
Brush, assorted, 21 to 24 inch.....	None wanted				3 dozen.....	7.36	153	Do.
Grass, assorted, 34 to 38 inch.....	4 dozen.....	8.50	14	San Francisco.	5 dozen.....	7.10	153	Do.
Weed, 28 and 30 inch.....	No award				do.	7.36	153	Do.
Scythe snaths, patent ring.....	2 dozen.....	8.10	14	San Francisco.	do.	6.60	153	Do.
Scythes, steel.....	9 dozen.....	.60	14	do.	23 dozen.....	.36	153	Do.
Spades, steel:								
Long handle, No. 2.....	38.....	.76	237	do.	51.....	.64½	153	Do.
D handle, No. 2.....	14.....	.79	14	do.	112.....	.64½	153	Do.

Twine, binder, long fiber (deal)	No sword.			24,822 pounds	.16	65	Do.
Twine, sack.	do			No sword			
Wheel, iron	36	4.80	14	66 a	3.94	153	Do.
All iron, tubular	5	4.20	14	18 b	2.45	153	Do.
Garden, wood, No. 2							

¹ Inspected and received at Metropolis, Ill.

² Champion, Deering, McCormick, Milwaukee, or Osborn.

³ Only.

WAGONS AND WAGON FIXTURES.

[Bids opened in Chicago May 2, 1917.]

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
Axletrees, hickory, wagon, wide and narrow track:				
2½ by 3½.....	16.....	\$0.49	181	St. Louis.
2½ by 3.....	6.....	.49	181	Do.
2½ by 3½.....	4.....	.58	181	Do.
3 by 4.....	19.....	.68	181	Do.
3½ by 4½.....	37.....	.80	181	Do.
2½ by 4½.....	45.....	.95	181	Do.
4 by 5.....	20.....	1.20	181	Do.
4½ by 5½.....	8.....	1.65	181	Do.
Bolsters, sand, oak, wagon, narrow track:				
2½ by 3½.....	12.....	.30	181	Do.
2½ by 4.....	2.....	.45	181	Do.
3 by 4½.....	None.....	.57	181	Do.
3½ by 5.....	16.....	.65	181	Do.
Bolsters, sand, oak, wagon, wide track:				
2½ by 3½.....	1.....	.40	181	Do.
2½ by 4.....	50.....	.50	181	Do.
3 by 4½.....	31.....	.59	181	Do.
3½ by 5.....	15.....	.65	181	Do.
Bolsters, rocker, oak, wagon, front, narrow track:				
2½ by 3½.....	8.....	.30	181	Do.
2½ by 4.....	2.....	.45	181	Do.
3 by 4½.....	6.....	.57	181	Do.
3½ by 5.....	22.....	.65	181	Do.
Bolsters, rocker, oak, wagon, front, wide track:				
2½ by 3½.....	None.....	.40	181	Do.
2½ by 4.....	47.....	.50	181	Do.
3 by 4½.....	49.....	.63	181	Do.
3½ by 5.....	24.....	.70	181	Do.
Bolsters, oak, wagon, rear, narrow track:				
2½ by 3½.....	61.....	.40	151	Do.
2½ by 3.....	21.....	.45	151	Do.
3 by 4.....	None.....	.50	151	Do.
3½ by 4½.....	181.....	.65	151	Do.
Bolsters, oak, wagon, rear, wide track:				
2½ by 3½.....	None.....	.45	151	Do.
2½ by 3.....	14.....	.50	151	Do.
3 by 4.....	50.....	.56	151	Do.
3½ by 4½.....	36.....	.70	151	Do.
Bows, farm wagon, oak, round top, ½ by 2 inches (per set of 5).	35 sets.....	1.05	181	Do.
Clevises:				
For eveners, 1½ inches thick, 4½ and 5½ inches long, wrought iron, with back clips, stay-chain rings, and self-fastening pin, per pound.	318.....	.07	107½	Racine, Wis.
For eveners, 2½ inches thick, 4½ and 5½ inches long, wrought iron, with back clips, stay-chain rings, and self-fastening pin, per pound.	637.....	.07	107½	Do.
Clips, center, 1-inch clip and 1-inch ring.....	29 dozen.....	1.10	107½	Do.
Covers, wagon, 10-ounce duck, 13 feet 9 inches long, 10 feet wide, full size, with draw rope each end and 3 tie ropes (36 inches long) each side.	No award. (See Appendix.)			
Eveners:				
Hickory, wagon, full-ironed—				
Narrow track.....	87.....	\$ 1.05	181	St. Louis.
Wide track.....	266.....	1.55	107½	Racine, Wis.
Hickory, wagon, not ironed—				
Narrow track.....	67.....	1.25		Do.
Wide track.....	174.....	1.35		Do.
Fellies (rims), hickory, wagon, bent:				
1½ by 1½ inches.....	6 sets.....	1.75	181	Do.
1½ by 1½ inches.....	None.....	2.10	181	Do.
1½ by 1½ inches.....	2 sets.....	2.55	181	Do.
1½ by 1½ inches.....	None.....	3.05	181	Do.
1½ by 1½ inches.....	5 sets.....	3.60	181	Do.
2 by 2½ inches.....	do.....	5.20	181	Do.

¹ Inspected and received at Metropolis, Ill.

² With stay chains.

³ Without stay chains.

WAGONS AND WAGON FIXTURES—Continued.

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
Fellies (rims), oak, wagon, bent:				
1½ by 2 inches.....	12 sets.....	\$2.40	181	St. Louis.
2 by 2½ inches.....	do.....	3.30	181	Do.
2½ by 3½ inches.....	22 sets.....	4.60	181	Do.
Fellies (rims), oak, wagon, sawed:				
1½ by 2½ inches.....	69 sets.....	1.85	181	Do.
1½ by 3 inches.....	55 sets.....	1.95	181	Do.
1½ by 2½ inches.....	15 sets.....	2.40	181	Do.
2 by 3 inches.....	14 sets.....	3.90	181	Do.
3 by 2½ inches.....	21 sets.....	4.85	181	Do.
4 by 2½ inches.....	10 sets.....	5.50	181	Do.
Hooks and ferrules, singletree, 1½-inch	190.....	.08	107½	Racine, Wis.
Hounds, oak, wagon:				
Front (3 pieces).....	80 sets.....	1.60	151	St. Louis.
Pole (2 pieces).....	144 sets.....	1.35	151	Do.
Rear (2 pieces).....	72 sets.....	1.50	151	Do.
Hubs, wagon, oak:				
Not less than 7½ inches diameter, length over all 10 inches, cupped 1½ inches, mortised 1½ by 1 inch.....	No award.....			
Not less than 7½ inches diameter, length over all 10½ inches, cupped 1½ inches, mortised 1½ by 1 inch.....	do.....			
Not less than 8 inches diameter, length over all 11½ inches, cupped 1½ inches, mortised 1½ by 1 inch.....	do.....			
Not less than 8½ inches diameter, length over all 12½ inches, cupped 1½ inches, mortised 1½ by 1 inch.....	do.....			
Not less than 9½ inches diameter, length over all 13½ inches, cupped 1½ inches, mortised 2 by 1½ inch.....	do.....			
Reaches, wagon, oak, sliding:				
9 feet 6 inches long by 3½ by 1½ inches.....	444.....	.55	181	Do.
9 feet 6 inches long by 4½ by 1½ inches.....	698.....	.55	181	Do.
Skins, with boxing, long hooded steel, wagon:				
2½ by 7½ inches.....	None.....	5.00	258	South Bend, Ind.
2½ by 8 inches.....	27 sets.....	5.50	258	Do.
3 by 9 inches.....	27 sets.....	6.00	258	Do.
3½ by 10 inches.....	17 sets.....	7.50	258	Do.
3½ by 11 inches.....	4 sets.....	10.00	258	Do.
Spokes, Hickory, buggy, 1½-inch	No award.....			(See Appendix.)
Spokes, wagon:				
1½-inch.....	14 sets.....	1.25	138	St. Louis.
1½-inch.....	1 set.....	1.25	138	Do.
2-inch.....	21 sets.....	1.55	138	Do.
2½-inch.....	88 sets.....	1.55	138	Do.
2½-inch.....	34 sets.....	1.95	138	Do.
2½-inch.....	3 sets.....	2.15	138	Do.
2½-inch.....	20 sets.....	2.55	138	Do.
3-inch.....	None.....	3.40	138	Do.
3½-inch.....	do.....	3.85	138	Do.
3½-inch.....	do.....	4.45	138	Do.
Springs:				
For wagon seats, 3-leaf, 28 by 1½ inches.....	115.....	.72	271	Chicago
Tongues, oak, for drop poles:				
2½ by 4 by 4 by 4, 12 feet.....	351.....	1.40	151	St. Louis.
2½ by 4½ by 4½ by 4½, 12 feet.....	115.....	2.15	181	Do.
257 wagons, as follows:				
Narrow track; equipped with gear brake, full clipped gear, and hooded steel skains:				
172½ by 8 inches, 1½-inch tire.....		66.17	258	South Bend, Ind.
172½ by 8 inches, 3-inch tire.....		71.49	258	Do.
173 by 9 inches, 1½-inch tire.....		67.49	258	Do.
173 by 9 inches, 3-inch tire.....		74.15	258	Do.
173½ by 10 inches, 1½-inch tire.....		72.49	258	Do.
173½ by 10 inches, 3-inch tire.....		79.14	258	Do.
173½ by 11 inches, 2-inch tire.....		79.14	258	Do.
173½ by 11 inches, 4-inch tire.....		89.73	258	Do.
Wide track; equipped with gear brake, full clipped gear, and hooded steel skains:				
172½ by 8 inches, 1½-inch tire.....		66.17	258	Do.
172½ by 8 inches, 3-inch tire.....		71.49	258	Do.
173 by 9 inches, 1½-inch tire.....		67.49	258	Do.
173 by 9 inches, 3-inch tire.....		74.15	258	Do.

¹ Inspected and received at Metropolis, Ill.

² In bundles.

³ Orders to be placed within 60 days from May 2, 1917.

⁴ 1½-inch tire.

WAGONS AND WAGON FIXTURES—Continued.

Articles.	Quantity awarded.	Unit price.	No. of con- tractor.	Point of delivery.
337 wagons, as follows—Continued.				
Wide track; equipped with gear brake, full clipped gear, and hooded steel skains—Continued.				
If 2 $\frac{1}{2}$ by 10 inches, 1 $\frac{1}{2}$ -inch tire		\$72.49	258	South Bend, Ind.
If 3 $\frac{1}{2}$ by 10 inches, 3-inch tire		79.14	258	Do.
If 3 $\frac{1}{2}$ by 11 inches, 2-inch tire		79.14	258	Do.
If 3 $\frac{1}{2}$ by 11 inches, 4-inch tire		89.73	258	Do.
Narrow track California stake rack bed, equipped with gear brake, full clipped gear, and hooded steel skains—				
If 2 $\frac{1}{2}$ by 8 inches, 1 $\frac{1}{2}$ -inch tire, depth 16 $\frac{1}{2}$ inches, length 10 feet 6 inches.		74.48	258	Do.
If 2 $\frac{1}{2}$ by 8 inches, 3-inch tire, depth 16 $\frac{1}{2}$ inches, length 10 feet 6 inches.		79.80	258	Do.
If 3 by 9 inches, 1 $\frac{1}{2}$ -inch tire, depth 16 $\frac{1}{2}$ inches, length 10 feet 6 inches.		75.81	258	Do.
If 3 by 9 inches, 3-inch tire, depth 16 $\frac{1}{2}$ inches, length 10 feet 6 inches.		82.46	258	Do.
If 3 $\frac{1}{2}$ by 10 inches, 1 $\frac{1}{2}$ -inch tire, depth 21 inches, length 11 feet 6 inches.		82.96	258	Do.
If 3 $\frac{1}{2}$ by 10 inches, 3-inch tire, depth 21 inches, length 11 feet 6 inches.		89.61	258	Do.
If 3 $\frac{1}{2}$ by 11 inches, 2-inch tire, depth 21 inches, length 13 feet 6 inches.		93.54	258	Do.
If 3 $\frac{1}{2}$ by 11 inches, 4-inch tire, depth 21 inches, length 13 feet 6 inches.		104.08	258	Do.
Wide track California stake rack bed, equipped with gear brake, full clipped gear, and hooded steel skains—				
If 2 $\frac{1}{2}$ by 8 inches, 1 $\frac{1}{2}$ -inch tire, depth 16 $\frac{1}{2}$ inches, length 10 feet 6 inches.		74.48	258	Do.
If 2 $\frac{1}{2}$ by 8 inches, 3-inch tire, depth 16 $\frac{1}{2}$ inches, length 10 feet 6 inches.		79.80	258	Do.
If 3 by 9 inches, 1 $\frac{1}{2}$ -inch tire, depth 16 $\frac{1}{2}$ inches, length 10 feet 6 inches.		75.81	258	Do.
3 by 9 inches, 3-inch tire, depth 16 $\frac{1}{2}$ inches, length 10 feet 6 inches.		82.46	258	Do.
If 3 $\frac{1}{2}$ by 10 inches, 1 $\frac{1}{2}$ -inch tire, depth 21 inches, length 11 feet 6 inches.		82.96	258	Do.
If 3 $\frac{1}{2}$ by 10 inches, 3-inch tire, depth 21 inches, length 11 feet 6 inches.		89.61	258	Do.
If 3 $\frac{1}{2}$ by 11 inches, 2-inch tire, depth 21 inches, length 13 feet 6 inches.		93.54	258	Do.
If 3 $\frac{1}{2}$ by 11 inches, 4-inch tire, depth 21 inches, length 13 feet 6 inches.		104.08	258	Do.
Narrow track; equipped with hooded steel skain, full clipped gear, and box brake—				
If 2 $\frac{1}{2}$ by 8 inches, 1 $\frac{1}{2}$ -inch tire		62.18	258	Do.
If 2 $\frac{1}{2}$ by 8 inches, 3-inch tire		67.50	258	Do.
If 3 by 9 inches, 1 $\frac{1}{2}$ -inch tire		63.50	258	Do.
If 3 by 9 inches, 3-inch tire		70.16	258	Do.
If 3 $\frac{1}{2}$ by 10 inches, 1 $\frac{1}{2}$ -inch tire		68.50	258	Do.
If 3 $\frac{1}{2}$ by 10 inches, 3-inch tire		75.50	258	Do.
If 3 $\frac{1}{2}$ by 11 inches, 1 $\frac{1}{2}$ -inch tire		72.49	258	Do.
If 3 $\frac{1}{2}$ by 11 inches, 4-inch tire		85.07	258	Do.
Wide track; equipped with hooded steel skain, full clipped gear, and box brake—				
If 2 $\frac{1}{2}$ by 8 inches, 1 $\frac{1}{2}$ -inch tire		62.18	258	Do.
If 2 $\frac{1}{2}$ by 8 inches, 3-inch tire		67.50	258	Do.
If 3 by 9 inches, 1 $\frac{1}{2}$ -inch tire		63.50	258	Do.
If 3 by 9 inches, 3-inch tire		70.16	258	Do.
If 3 $\frac{1}{2}$ by 10 inches, 1 $\frac{1}{2}$ -inch tire		68.50	258	Do.
If 3 $\frac{1}{2}$ by 10 inches, 3-inch tire		75.50	258	Do.
If 3 $\frac{1}{2}$ by 11 inches, 1 $\frac{1}{2}$ -inch tire		72.49	258	Do.
If 3 $\frac{1}{2}$ by 11 inches, 4-inch tire		85.07	258	Do.
Spring seats	280	3.00	258	Do.
		3.43	258	
		3.66	258	
		4.33	258	
Top boxes	277			Do.
Whiffletrees, hickory, wagon:				
Full-ironed	851	.53	1074	Racine, Wis.
Not ironed	424	.125	181	St. Louis.
Yokes, neck, hickory, wagon:				
Full-ironed	178	.53	1074	Racine, Wis.
Not ironed, turned to shape and size	75	.17	181	St. Louis.

1 1 $\frac{1}{2}$ -inch tire.

2 9 inches by 10 feet.

3 9 inches by 10 feet 6 inches.

4 11 inches by 10 feet 6 inches

PAINTS, OILS, AND GLASS—Continued.

Articles.	Bids opened in San Francisco Apr. 2, 1917.				Bids opened in St. Louis May 25, 1917.					
	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.	Quantity awarded.	Price.	No. of contractor.	Point of delivery.	Quantity awarded.	Price.
Glass, window, single thick—Continued.										
10 by 12.....	23				Boxes.	\$2.49	119	Chicago.	Boxes.	\$2.56
10 by 14.....	19				19	2.49	119	do.	21	2.56
10 by 16.....	10				10	2.56	119	do.	5	2.56
10 by 18.....	7				7	2.56	119	do.	14	2.56
10 by 20.....	13				13	2.56	119	do.		
10 by 22.....	10				10	2.56	119	do.		
10 by 24.....										
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15 by 328.....										
15 by 330.....										
15 by 332.....										
15 by 334.....										

Quantity awarded.		Unit price.	No. of contractor.	Point of delivery.
15 by 24	14	4.70	119	Chicago.
15 by 26	38	4.70	119	do.
15 by 28	15	4.70	119	do.
15 by 32	15	4.70	119	do.
15 by 34	70	4.70	119	do.
15 by 36	13	4.80	119	do.
15 by 40	3	3.90	119	Chicago.
15 by 18	5	3.90	119	Chicago.
15 by 20	2	4.45	119	do.
15 by 22				
15 by 24				
15 by 26				
15 by 28				
15 by 30				
15 by 32				
15 by 34				
15 by 36				
15 by 38				
15 by 40				
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15 by 194				
15 by 196				
15 by 198				
15 by 200				

Only.

PAINTS, OILS, AND GLASS—Continued.

Articles.	Bids opened in San Francisco Apr. 2, 1917.				Bids opened in St. Louis May 25, 1917.			
	Quantity awarded.	Unit price.	No. of tractor.	Point of delivery.	Quantity awarded.	Unit price.	No. of tractor.	Point of delivery.
Interior varnish.....	214 gallons.....				402 gallons.....			
In 1-gallon cans.....		\$0.80	225	St. Louis.....				New York, Chicago, St. Louis, Omaha, Kansas City, St. Paul, San Francisco, Seattle, Los Angeles, Portland.
In 5-gallon cans.....		.75	225	do.....		\$0.80	280	do.
Japan, house painter's.....	274 gallons.....	.44	85	San Francisco.....	408 gallons.....	.64	174	New York.
Lampblack:								
In 1-pound papers.....	101 pounds.....	.115	305	do.....	183 pounds.....	.14	143	St. Louis.
In oil—In 1-pound, 2-pound, and 5-pound cans.....	240 pounds.....	.1248	107	Philadelphia.....	480 pounds.....	{ .21 .20	131 131	Chicago. Do.
Lead, red:								
Dry, in kegs.....	354 pounds.....	.1068	85	San Francisco.....	625 pounds.....	.115	131	Do.
In oil.....	None wanted.				No award.			(See Appendix.)
Lead, white.....	52,550 pounds.....	.1043	85	San Francisco.....	97,600 pounds.....	.1097	285	Chicago.
Oakum, plumber's, not spun.....	133 pounds 1.....	.105	117	do.....	No award.			
Oil:								
Floor, in 5-gallon cans.....	2,770 gallons.....	.16	250	do.....	5,685 gallons.....	.16	250	San Francisco.
Kerosene, water white, flashing point above 115° F.....	15,075 gallons.....	{ .18 1.09 1.156 1.10	250	{ Los Angeles or San Francisco. Portland or Seattle.....	29,515 gallons 4 920 gallons 5.....	.0822 .1825	20 1	St. Louis. Philadelphia.
Linseed, boiled.....						.09	250	San Francisco or Los Angeles.
Linseed, raw.....						.10	250	Portland or Seattle.
Lubricating oils:						.18	250	San Francisco or Los Angeles.
Steam cylinder—						.195	250	Portland or Seattle.
In 1-barrel.....	820 gallons.....	.24	85	San Francisco.....	No award.....			Do.
In 5-gallon cans.....	980 gallons.....	.31	85	do.....	do.....			Do.
Gas or gasoline engine cylinder—								
Light—								
In barrels.....	425 gallons.....	.23	1	Philadelphia.....	2,080 gallons.....	.245	170	St. Louis.
In 5-gallon cans.....	805 gallons.....	.29	1	do.....	1,240 gallons.....	.34	164	Do.

[illegible]

PAINTS, OILS, AND GLASS—Continued.

Articles.	Bids opened in San Francisco Apr. 2, 1917.				Bids opened in St. Louis May 25, 1917.			
	Quantity awarded.	Unit price.	No. of con- tractor.	Point of delivery.	Quantity awarded.	Unit price.	No. of con- tractor.	Point of delivery.
Paper, tarred:								
Crated.....	34 rolls ¹	\$1.20	203	San Francisco.....	213 rolls.....	\$2.35	40	Omaha.
Not crated.....	No award.....				No award.....	\$2.85	40	Do.
Pitch.....	760 pounds ¹.....	.083	85	San Francisco.....				
	920 pounds ¹.....	.0845	85	do.....				
Putty, in 5-pound, 10-pound, and 25-pound cans.	760 pounds ¹.....	.0945	85	do.....	9,600 pounds ¹.....	.04	131	Chicago.
	160 pounds ¹.....	.090	305	do.....	120 pounds ¹.....	.04	153	Do.
Resin, common.....	210 pounds.....	.043	305	do.....	46 gallons.....	1.24	305	San Francisco.
Staining, wall, blackboard, liquid.....	25 gallons.....	1.235	305	do.....	108 gallons.....	.80	131	Chicago.
Stain, oak, oil, light or medium in color, in 1-gallon cans.....	39 gallons.....	.70	85	do.....				
Turpentine: *								
In 1-gallon can.....	405 gallons.....	.31	250	do.....	No award.....			
		.33	250	Los Angeles.....				
		.335	250	Portland or Seattle.....				
In 5-gallon cans.....	1,490 gallons.....	.25	250	San Francisco.....				
		.27	250	Los Angeles.....	do.....			
Umber, burnt, in oil.....	384 pounds.....	.275	250	Portland or Seattle.....	448 pounds.....	.16	131	Do.
Varnish, wagon.....	66 gallons.....	.1104	107	Philadelphia.....	100 gallons.....	.99	21	St. Louis.
Whiting, extra, gilder's.....	1,000 pounds.....	.80	225	St. Louis.....	1,250 pounds.....			
If in barrels.....		.014	305	San Francisco.....	None wanted.....			
If in wooden drums.....		.01875	305	do.....		.025	169	Omaha.
If in less quantities.....		.02	305	do.....		.03	169	Do.

TIN AND STAMPED WARE.

Articles.	Bids opened in San Francisco Apr. 2, 1917.				Bids opened in St. Louis May 25, 1917.			
	Quantity awarded.	Unit price.	No. of con- tractor.	Point of delivery.	Quantity awarded.	Unit price.	No. of con- tractor.	Point of delivery.
Bollers, wash, XX tin, flat copper bottom, size about 21 by 11 by 13 inches, iron drop handles, riveted, heavy.....	No award.....				620 ¹	\$1.75	153	Chicago.
Buckets, water, galvanized iron, heavy, 14-quart.	288 ¹	\$0.68	113	San Francisco.....	1,630 ¹.....	.63	153	Do.
Candlesticks, polished tin or japanned, 6-inch.	14 dozen.....	.60	14	do.....	9 dozen ¹.....	.50	153	Do.
Cans.....								
Kerosene, galvanized, corrugated sides, 1-gallon, common top.....	244 dozen ¹	3.30	117	do.....	21 dozen ¹	2.75	153	Do.
Milk, all steel, 32-quart, flanged, returned.	28.....	2.75	14	do.....	50 ¹	2.75	153	Do.

	21	51 ⁺	118	do	27 (no award)	
Coffee-pots, IX tin:						
2-quart.	No award	2.00	308	San Francisco	337 ¹	
4-quart.	None wanted	.49	117	do	61 ¹	Do.
Coffee boilers, XX tin:						St. Louis.
6-quart.	No award	.20 ¹	113	do	86 ¹	
11-quart.	7	.63	114	do	80 ¹	
Coffee-pots, 4-quart, gray enameled ware.	(20 ¹)	.20 ¹	113	do		
Coffee boilers, 6-quart, gray enameled ware.	(27)	.63	113	do		
Coffee mills:						
Iron or black-tin hopper box.	4 ¹	.45	117	do	13 ¹	Chicago.
With wheel, capacity of hopper 6 pounds.	None wanted				No award	
Colanders, seamless steel, 16 $\frac{1}{2}$ by 5 $\frac{1}{2}$ inches.	6 ¹	1.40	117	San Francisco	42 ¹	Do.
Cups, XX stamped tin, retinned:						
1-pint.	No award				57 ¹	Do.
1-quart.	do				(*)	
Dippers, water, 1-quart, XX tin, long handles.	18 ¹ , dozen ¹	2.19	113	San Francisco	36 dozen ¹	St. Louis.
Flour sifters.	135 ¹	.124 ¹	113	do	272 ¹	Do.
Funnels, stamped tin, retinned:						
1-pint.	No award				15 dozen ¹	Chicago.
1-quart.	do				25 dozen ¹	Do.
2-quart.	do				22 dozen ¹	Do.
Kettles, with covers, wrought-steel hollow ware:					95 ¹	Chicago.
13-quart.	No award				63 ¹	Do.
16-quart, porcelain-lined.	do				74 ¹	Do.
Measures, XXX tin, with full rim:					(19)	
Pint.	do				157 ¹	Do.
Quart.	do					
Pails, water, XXX charcoal tin, retinned:						
10-quart.	78 ¹	.604	113	San Francisco	333 ¹	Do.
14-quart, with 3 $\frac{1}{2}$ -inch ball woods.	704 ¹	.65	113	do	679 ¹	Do.
Pails, milk, sanitary.	(1 ¹)				(1 ¹)	Do.
Pans:						
Bake, sheet steel, No. 27, 12 by 19 by 4 inches.	No award				205 ¹	St. Louis.
Bake, sheet steel, No. 27, 15 by 20 by 4 inches,	do				418 ¹	Do.
with two 4-inch oval runners.						
Dish, XXXX stamped tin, retinned—						
14-quart.	115 ¹	.95	117	San Francisco	287 ¹	Chicago.
17-quart.	145 ¹	1.075	117	do	402 ¹	St. Louis.
Pans, iron, wrought, heavy:	No award				33 dozen ¹	Do.
8 inches across bottom, polished:						
10 inches across bottom, extra heavy.	37			San Francisco	107 ¹	Chicago.
17 inches across bottom, extra heavy.	No award	.20	237	(See Appendix.)	No award	(See Appendix.)
18 inches across bottom, extra heavy.	do				do	
Pans, iron, solid cast iron, 18 by 30 by 2 $\frac{1}{2}$ inches.	do				35 ¹	St. Louis.

* Eliminated for this year.
 + Measures, quart, selected to fill this item.
 † Pails, water, 14-quart, selected to fill this item.

i Only.
 j Per hundredweight.
 k In 5-pound cans.
 l In 10-pound cans.

TIN AND STAMPED WARE—Continued.

Articles.	Bids opened in San Francisco Apr. 2, 1917.				Bids opened in St. Louis May 25, 1917.			
	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
Pans, tin, milk, full size, IXX, seamless, retinned:								
1-quart.....	No award.				20 dozen.....	\$1.20	153	Chicago.
2-quart.....	do.				(1) 30 dozen ¹	2.50	153	Do.
4-quart.....	do.				(9) 40 dozen ¹	3.30	153	Do.
6-quart.....	do.				22 dozen ¹.....	.45	153	Chicago.
8-quart.....	do.				115 dozen ¹.....	.53	153	Do.
Plates, IXX stamped tin, 9-inch:								
Baking, deep, jolly.....	do.							
Pots, seamless, soup stock, 7-stinned inside and outside, with faucet and strainer:								
6-gallon.....	20 ¹	\$7.10	117	San Francisco.	47 ¹	2.27	153	Do.
Pots, soup stock, hotel, wrought steel, covered, retinned:	19 ¹	7.90	117	do.	45.....	4.27	153	Do.
1-gallon.....	8 ¹	3.68	117	do.	(1).....			
2-gallon.....	4 ¹	4.50	117	do.	12 ¹	10.00	153	Do.
14-gallon.....	9 ¹	5.75	113	do.				
Scoops, grocer's, hand, IXX stamped tin:								
No. 30.....	12 ¹.....	.204	113	do.	34 ¹.....	.22	153	Do.
No. 40.....	14 ¹.....	.433	113	do.	32 ¹.....	.33	153	Do.
Spoons, basting, forged steel, retinned, about 14-inch handle:	10 ¹ dozen.....	1.35	113	do.	2 dozen.....	.84	153	Do.
Strainers, milk, XX tin, 12-inch.....	25.....	.50	14	do.	94.....	.32	115	St. Louis.
Teapots:								
Heavy, planished tin, 4-pint, round.....	None wanted.				No award.			
4-quart, gray enameled ware.....	No award.				83.....	.449	115	Do.
6-quart, gray enameled ware.....	do.				86.....	.647	115	Do.
Tin, sheet, charcoal, bright:								
10 by 14 inches, IC.....	do.			(See Appendix.).....	No award.			(See Appendix.)
14 by 20 inches, IC.....	do.			do.	do.			Do.
14 by 20 inches, IC.....	do.			do.	do.			
10 by 14 inches, IX.....	None wanted.			St. Louis.	do.			
20 by 28 inches, IX.....	5 ¹	28.10	261	do.	do.			
14 by 20 inches, IX.....	None wanted.			do.	do.			
14 by 60 inches, boiler, IX.....	No award.			(See Appendix.).....	do.			(See Appendix.)
Trays, tea, oval, extra heavy, hotel, japanned, 20-inch.	do.				do.			

STOVES, PIPE, HOLLOW WARE, ETC.

When basins, stamped tin, first bottom, re- turned, 11-inch. Washtubs, galvanized iron, 10½ inches deep, drop handles: 16½ inches diameter. 21 inches diameter. 24 inches diameter. Zinc, sheet, 36 by 84 inches, No. 9	24½ dozen 1.	2.00	113	San Francisco.	58 dozen.	1.75	115	St. Louis.
	96 1.	.78	291	St. Louis.	178 1.	.78	153	Chicago.
	111 1.	.88	291	do.	272 1.	.81	153	Do.
	154 1.	1.02	291	do.	324 1.	.96	153	Do.
	No award				No award			
Calderons, iron, portable, full jacket, with fur- nace: 75 gallons capacity								
	None wanted.	\$21.55 { 21.55	117	San Francisco.	No award			(See Appendix.) Do.
Others, stovepipe: 6-inch. 7-inch. 8-inch.	54 1. 6. 6.	.085 .06 .06	113 98	do. do.	102 1. 15 1. 15 1.	\$0.03 .05½ .075	153 291 153	Chicago, St. Louis, Chicago.
Dampers, stovepipe: 6-inch. 7-inch.	282 42	.06 .0744	286 256	( (	515 1. 88 1.	.075 .125	153 153	Chicago. Do.
Elbow, stovepipe, adjustable, not corrugated, No. 24 iron: Size 6-inch. Size 7-inch.	No award 56 1.	.24	117	San Francisco.	621 1. 146 1.	.17 .21	153 153	Do. Do.
Flue, stovepipe, corrugated, not adjustable, No. 24 iron: Size 6-inch. Size 7-inch.	286 1. 40 1.	.12 .18	117 117	do. do.	371 1. 81 1.	.125 .15	153 153	Do. Do.
Hoods, coal, galvanized, heavy: 16-inch. 18-inch.	74 1. 66 1.	.35 .48	291 291	St. Louis. do.	358 1. 358 1.	.42 .50	68 63	St. Louis. Do.
Ovens, Dutch, cast iron, deep pattern: 10 inches diameter inside. 15 inches diameter inside.	3 1. 1 1.	1.41 1.88	113 113	San Francisco. do.	No award. do.			(See Appendix.) Do.
Pipe, stove, No. 28 iron: Size 6-inch. Size 7-inch.	No award do.				2,028 joints 1. 319 joints 1.	.18 .2025	153 153	Chicago. Do.
Polish, stove: Size 6-inch. Size 7-inch.	75 dozen.	.75	117	San Francisco.	147 dozen 1.	.45	153	Do.
Stoves, box, heating, wood: If 24 inches long.	8.	{ 6.33 5.05	56 56	San Francisco. Chicago or St. Louis.	None wanted.	{ \$ 4.95 10 4.00 \$ 5.05 10 4.70	44 44	Quincy. Chicago or St. Louis.

1 Pans, 1-quart, selected to fill this item.
2 Only.
3 Pans, 8-quart, selected to fill this item.
4 Pans, 6-gallon, seamless, selected to fill this item.
5 Pans, 6-gallon, seamless, selected to fill this item.

6 Not crated.
7 Crated.
8 Shipments of 150 pounds or more f. o. b. Chicago; smaller shipments f. o. b. Freeport, Ill.
9 If crated, add 50 cents.
10 If crated, add 40 cents.

STOVES, PIPE, HOLLOW WARE, ETC.—Continued.

Articles.	Bids opened in San Francisco Apr. 2, 1917.				Bids opened in St. Louis May 25, 1917.			
	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
Stoves, box, heating, wood—Continued.								
11 37 inches long.....	3.	{ \$7.50 5.96	{ 56 56	{ San Francisco Chicago or St. Louis.....	2.	{ 185.85 12.50 9.40 17.48 17.26	{ 44 44 44 44 44	{ Quincy. Chicago or St. Louis. Quincy. Chicago or St. Louis. Quincy.
11 23 inches long.....	2.	{ 9.30 7.60	{ 56 56	{ San Francisco Chicago or St. Louis.....	7.	{ 17.75 17.40 19.50 19.15 19.70 19.32	{ 44 44 44 44 44 44	{ Chicago or St. Louis. Quincy. Chicago or St. Louis. Quincy. Chicago or St. Louis.
11 37 inches long.....	1.	{ 11.85 9.65	{ 56 56	{ San Francisco Chicago or St. Louis.....	2.			Chicago or St. Louis.
Stoves, steel box, heating, wood:								
23 inches long.....	9.	{ 15.35 15.10 16.10	{ 98 98 98	{ (San Francisco or New- ark, Cal. do. do.	2.		46	St. Louis.
26 inches long.....	22.	{ 15.85 17.15 16.90	{ 98 98 98	{ do. do. do.	20.		46	Do.
28 inches long.....	46.				6.		46	Do.
33 inches long.....	No award.				No award.			(See Appendix.)
37 inches long.....	do.				do.			Do.
Stoves, sheet-steel, heating, coal:								
15-inch body.....	34.	{ 12.40 10.65 14.00	{ 56 56 56	{ San Francisco Chicago or St. Louis San Francisco	82.	{ 110.45 112.15 111.95	{ 46 44 44	{ St. Louis. Chicago or St. Louis. Quincy.
17-inch body.....	18.	{ 11.95 11.50 11.30	{ 56 56 117	{ Chicago or St. Louis Chicago or St. Louis San Francisco	127.			
Stoves, heating, 18-inch, air-tight, sheet-steel.	2.				No award.			(See Appendix.)
Stoves, heating, coal:								
14-inch cylinder.....	1.	{ 12.25 11.75	{ 98 98	{ (San Francisco or New- ark, Cal. do.	8.		46	St. Louis.
16-inch cylinder.....	None wanted.				50.	{ 12.10 125.20 124.95	{ 46 44 44	{ Do. Quincy. Quincy.
22-inch cylinder.....	do.				34.	{ 125.65 125.40 122.50 122.15 122.80	{ 44 44 44 44 44	{ Chicago or St. Louis. Quincy. Chicago or St. Louis. Quincy. Chicago or St. Louis.
Stoves, heating, combined coal and wood, 22 inches diameter.	No award.				10.			

Stoves, heating, wood, sheet-iron:

32-inch.....	6.....	{ \$15.75 \$15.25 }	98 { San Francisco or New- ark, Cal..... do..... }	{ 32-inch stoves, heating, wood selected to fill this item..... }	{ \$14.30 \$14.45 }	44 44	Quincy. Chicago or St. Louis.
37-inch.....	5.....	{ \$25.00 \$24.00 }	98				
Stoves, heating, hard-coal, mounted base- burner, firepot about 12 by 14 inches.	None wanted.						
Stoves, coal, laundry:							
For heating 24 frons.	No award.						
For heating 36 frons.	None wanted.						
Stoves, cooking, coal:							
7-inch.....	do.						
8-inch.....	do.						
Wood—							
9-inch.....	4.....	{ \$21.20 \$20.45 }	117	San Francisco			Quincy. Chicago or St. Louis.
6-inch.....	2.....	\$14.00	98	San Francisco or New- ark, Cal.	No award.		Quincy. Chicago or St. Louis.
7-inch.....	10 ¹	\$17.10	303	San Francisco.	None wanted.		(See Appendix.)
8-inch.....	9.....	\$21.00	303	do.			Quincy. Chicago or St. Louis.
9-inch.....	9.....	\$21.85	117	do.			Quincy. Chicago or St. Louis.
Range, family size, 8-inch lids, oven not less than 20 by 20 by 12 $\frac{1}{2}$ inches, for wood or soft coal; large-sized firebox.....	11.....	{ \$25.10 \$22.20 }	56	do.			Quincy. Chicago or St. Louis.
Range, six 8-inch lids, oven not less than 14 by 16 by 10 inches, for wood or soft coal.....	8.....	\$20.40	98	Chicago or St. Louis.			Quincy. Chicago or St. Louis.
Stoves, cooking, kerosene oil, wick, blue flame.	17 ²	10.98	250	{ San Francisco or New- ark, Cal..... San Francisco..... }	{ \$21.80 \$22.10 }	44 44	Quincy. Chicago or St. Louis.
Stoves, portable, heating, tubular, kerosene oil, wick.	40.....	2.55	237	do.	do.		Do

HARDWARE.

Adzes, c. s., house carpenter's, 4 $\frac{1}{2}$ -inch cut, square head.	1.....	\$1.20	14	San Francisco.	10 ¹	\$0.99	238	St. Louis.
Anvils, wrought iron, steel face:								
100-pound..... per pound.	None.	.16	14	do.	1 ¹	.15	153	Cleveland.
140-pound..... per pound.	5.....	.16	14	do.	3 ¹	.15	153	Do.
200-pound..... per pound.	2.....	.16	14	do.	2 ¹	.15	153	Do.

¹ Crated.
² Uncrated.
³ Add 5 per cent for crates.

⁴ If crated, add 50 cents.
⁵ Only.
⁶ If crated, add \$1.

⁷ If crated, add 55 cents.
⁸ If crated, add 40 cents.

HARDWARE—Continued.

Articles.	Bids opened in San Francisco Apr. 2, 1917.				Bids opened in St. Louis May 25, 1917.			
	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
Augers, nut, with extension lip:								
1 1/2-inch.....	None.	\$0.50	14	San Francisco.	3 1/2.....	\$0.40	153	Chicago.
1 1/4-inch.....	2.....	.63	14	do.	9 1/2.....	.47	153	Do.
1 1/2-inch.....	None.	.80	14	do.	11.....	.85	153	Do.
2-inch.....	4.....	1.05	14	do.	20.....	.60	153	Do.
Augers, c. s., hollow, adjustable, to cut 1/2 to 1 1/2-inch.	No award							
Axes:								
Assorted, 31 to 44 pounds, Yankee pattern.	38 dozen.....	10.20	14	San Francisco.	82 dozen 1.....	9.95	238	St. Louis.
Broad c. s., 12-inch cut, single bevel.	None wanted.				1.....	2.75	238	Do.
Hunter's, c. s., handled, No. 2.	6.....	.60	14	San Francisco.	11.....	.42	238	Do.
Babbitt metal, medium quality.	No award				1,445 pounds 1.....	.1325	153	Chicago.
Bells:								
Cow, large, wrought.	None wanted.				5 1/2.....	.1875	33	St. Louis.
Hand, No. 8, polished, heavy.	3.....	1.40	14	San Francisco.	12.....	1.10	153	Chicago.
Bells, school, mounted:								(See Appendix.)
Size 240 to 260 pounds.	None wanted.				No award.....			Do.
Size 300 to 350 pounds.	2 1/2.....	21.50	238	St. Louis.	do.....			Do.
Size 400 to 425 pounds.	None wanted.				do.....			
Belting, leather:								
Single—								
1-inch.....	15 feet.....	.0854	95	San Francisco.	50 feet 1.....	.12	99	St. Louis.
1 1/4-inch.....	110 feet.....	.1286	95	do.	220 feet 1.....	.144	36	Do.
1 1/2-inch.....	50 feet.....	.1512	95	do.	556 feet 1.....	.108	36	Do.
2-inch.....	140 feet.....	.1728	95	do.	1,243 feet 1.....	.102	36	Do.
Double—								
2 1/2-inch.....	do.....	.41	95	do.	692 feet 1.....	.405	36	Do.
3-inch.....	285 feet.....	.4925	95	do.	832 feet 1.....	.485	36	Do.
3 1/2-inch.....	42 feet.....	.5745	95	do.	None.....	.506	36	Do.
4-inch.....	None.....	.6568	95	do.	300 feet 1.....	.647	36	Do.
4 1/2-inch.....	do.....	.7776	95	do.	60 feet 1.....	.733	36	Do.
5-inch.....	100 feet.....	.864	95	do.	95 feet 1.....	.801	36	Do.
6-inch.....	235 feet.....	1.0308	95	do.	216 feet 1.....	.971	36	Do.
12-inch.....	None.....	2.60	95	do.	80 feet 1.....	2.40	36	Do.
Belting, rubber:								
3-ply—								
2-inch.....	140 feet.....	.09	95	do.	505 feet.....	.11	139	Do.
4-inch.....	do.....	.12	95	do.	625 feet.....	.145	139	Do.
6-inch.....	330 feet.....	.18	95	do.	872 feet.....	.2175	139	Do.

4-ply— 8-inch.....	375 feet.....	238	95	do.....	199 feet.....	8476	159	Do.
10-inch.....	None.....	36	95	do.....	60 feet.....	4328	159	Do.
12-inch.....	.....do.....	439	95	do.....	.....do.....	515	159	Do.
Bovels sliding T, 10-inch.....	5.....	30	14	do.....	22.....	285	83	Do.
Bits, sugar, c. s., extension lip:								Chicago.
1-inch.....	— dozen.....	1.44	14	do.....	7 dozen ¹	1.61	153	Do.
1-inch.....	5 dozen.....	1.44	14	do.....	6 dozen ¹	1.61	153	Do.
1-inch.....	6 dozen.....	1.44	14	do.....	9 dozen ¹	1.61	153	Do.
1-inch.....	.....do.....	1.44	14	do.....	8 dozen ¹	1.82	153	Do.
1-inch.....	3 dozen.....	1.44	14	do.....	9 dozen ¹	2.02	153	Do.
1-inch.....	.....do.....	1.72	14	do.....	5 dozen ¹	2.23	153	Do.
1-inch.....	2 dozen.....	1.72	14	do.....	.....do ¹	2.43	153	Do.
1-inch.....	1 dozen.....	2.00	14	do.....	4 dozen ¹	2.84	153	Do.
1-inch.....	3 dozen.....	2.00	14	do.....	5 dozen ¹	2.84	153	Do.
1-inch.....	1 dozen.....	2.50	14	do.....	4 dozen ¹	3.24	153	Do.
1-inch.....	3 dozen.....	2.50	14	do.....	5 dozen ¹	3.24	153	Do.
1-inch.....	.....do.....	2.75	14	do.....	.....do ¹	3.65	153	Do.
1-inch.....	No award.....				22 dozen ¹	3.00	153	Do.
Blades, saw, butcher's bow, 20-inch.....								St. Louis.
Blades, hacksaw, 14, 18, and 32 teeth, as required:								Chicago.
8-inch.....	None wanted.....				4 gross ¹	6.88	238	Do.
10-inch.....	.....do.....				6 gross ¹	7.56	153	Do.
12-inch.....	.....do.....				4 gross ¹	8.38	238	Do.
Blowers, blacksmith's, crank motion, 12-inch fan, complete.	1. s.....	10.74	280	St. Louis.....	9.....	12.35	181	Do.
Boils, carriage, per 100:								Chicago.
1 by 1.....	1,000.....	.60	14	San Francisco.....	2,125 ¹.....	.45	153	Do.
1 by 1 1/2.....	2,300.....	.60	14	do.....	2,775 ¹.....	.45	153	Do.
1 by 2.....	2,250.....	.60	14	do.....	2,685 ¹.....	.50	153	Do.
1 by 2 1/2.....	2,100.....	.72	14	do.....	2,400 ¹.....	.54	153	Do.
1 by 3.....	1,900.....	.78	14	do.....	2,535 ¹.....	.59	153	Do.
1 by 3 1/2.....	600.....	.84	14	do.....	1,275 ¹.....	.63	153	Do.
1 by 4.....	1,200.....	.90	14	do.....	2,000 ¹.....	.68	153	Do.
1 by 4 1/2.....	700.....	1.14	14	do.....	1,500 ¹.....	.86	153	Do.
1 by 5.....	750.....	1.20	14	do.....	1,863 ¹.....	.93	153	Do.
1 by 5 1/2.....	1,100.....	1.32	14	do.....	1,213 ¹	1.07	288	Do.
1 by 6.....	1,200.....	1.40	14	do.....	2,213 ¹	1.21	153	Do.
1 by 6 1/2.....	1,250.....	1.62	14	do.....	2,453 ¹	1.36	153	Do.
1 by 7.....	800.....	1.80	14	do.....	1,583 ¹	1.50	153	Do.
1 by 7 1/2.....	850.....	2.00	14	do.....	1,730 ¹	1.58	153	Do.
1 by 8.....	450.....	2.80	14	do.....	1,453 ¹	2.53	153	Do.
1 by 8 1/2.....	750.....	3.22	14	do.....	1,113 ¹	2.93	153	Do.
1 by 9.....	725.....	3.64	14	do.....	875 ¹	3.25	153	Do.
1 by 9 1/2.....	150.....	4.40	14	do.....	625 ¹	3.64	153	Do.
1 by 10.....	300.....	4.80	14	do.....	520 ¹	3.89	153	Do.
1 by 11.....	100.....	5.30	14	do.....	350 ¹	4.60	153	Do.
1 by 11 1/2.....	100.....	5.60	14	do.....	280 ¹	5.05	153	Do.
1 by 12.....	300.....	6.00	14	do.....	73 ¹	5.40	153	Do.

* Less discount of 65-65 per cent.

Only.

HARDWARE—Continued.

Articles.	Bids opened in San Francisco Apr. 2, 1917.				Bids opened in St. Louis May 25, 1917.			
	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
Bolts, door: 8-inch.....	9 dozen.....	\$0.80		San Francisco.	No award.			
Bolts, machine, per 100:	No award.				do.			
by 1.....	600.....	.96	14	San Francisco.	2,163 1	\$0.72	153	Chicago.
by 2.....	850.....	1.86	14	do.	1,401 1	.72	153	Do.
by 3.....	750.....	1.07	14	do.	1,633 1	.70	153	Do.
by 4.....	800.....	1.04	14	do.	1,900 1	.80	153	Do.
by 5.....	700.....	1.08	14	do.	1,401 1	.82	153	Do.
by 6.....	250.....	1.14	14	do.	1,033 1	.85	153	Do.
by 7.....	750.....	1.14	14	do.	1,033 1	.85	153	Do.
by 8.....	1,050.....	1.14	14	do.	1,401 1	.85	153	Do.
by 9.....	1,300.....	1.20	14	do.	1,401 1	.91	153	Do.
by 10.....	900.....	1.25	14	do.	1,401 1	.96	153	Do.
by 11.....	1,200.....	1.32	14	do.	1,401 1	1.01	153	Do.
by 12.....	1,160.....	1.43	14	do.	1,138 1	1.06	153	Do.
by 13.....	1,160.....	1.43	14	do.	1,201 1	1.11	153	Do.
by 14.....	1,400.....	1.54	14	do.	1,033 1	1.55	153	Do.
by 15.....	450.....	1.54	14	do.	1,033 1	1.63	153	Do.
by 16.....	400.....	1.60	14	do.	1,250 1	1.08	153	Do.
by 17.....	None.....	1.36	14	do.	300 1	1.09	153	Do.
by 18.....	575.....	1.44	14	do.	1,889 1	1.09	153	Do.
by 19.....	350.....	1.54	14	do.	1,231 1	1.16	153	Do.
by 20.....	350.....	1.64	14	do.	1,231 1	1.16	153	Do.
by 21.....	575.....	1.64	14	do.	1,900 1	1.23	153	Do.
by 22.....	400.....	1.70	14	do.	1,250 1	1.30	153	Do.
by 23.....	475.....	1.82	14	do.	1,728 1	1.37	153	Do.
by 24.....	250.....	1.92	14	do.	1,033 1	1.92	153	Do.
by 25.....	350.....	2.20	14	do.	1,033 1	1.92	153	Do.
by 26.....	300.....	2.44	14	do.	613 1	2.00	153	Do.
by 27.....	350.....	2.52	14	do.	1,013 1	2.10	153	Do.
by 28.....	250.....	2.66	14	do.	463 1	2.19	153	Do.
by 29.....	250.....	2.66	14	do.	963 1	2.28	153	Do.
by 30.....	None.....	2.72	14	do.	893 1	2.37	153	Do.
by 31.....	do.....	2.86	14	do.	333 1	2.46	153	Do.
by 32.....	125.....	2.98	14	do.	1,075 1	2.55	153	Do.
by 33.....	225.....	2.98	14	do.	1,133 1	2.55	153	Do.
by 34.....	200.....	2.38	14	do.	783 1	1.94	153	Do.
by 35.....	150.....	2.52	14	do.	1,163 1	2.06	153	Do.
by 36.....	None.....	2.52	14	do.	313 1	2.17	153	Do.
by 37.....	100.....	2.66	14	do.	935 1	2.28	153	Do.
by 38.....	None.....	2.78	14	do.	885 1	2.39	153	Do.
by 39.....	None.....	3.06	14	do.		2.62	153	Do.

by 7.....	3.33	14	do.	485 ¹	2.85	153	Do.
by 34.....	3.06	14	do.	1,210 ¹	2.64	153	Do.
by 4.....	3.26	14	do.	1,535 ¹	2.79	153	Do.
by 43.....	3.44	14	do.	860 ¹	2.94	153	Do.
by 5.....	3.53	14	do.	1,085 ¹	3.09	153	Do.
by 59.....	3.78	14	do.	635 ¹	3.24	153	Do.
by 6.....	3.92	14	do.	1,045 ¹	3.39	153	Do.
by 7.....	4.32	14	do.	460 ¹	3.63	153	Do.
by 8.....	4.64	14	do.	865 ¹	3.96	153	Do.
by 9.....	4.98	14	do.	380 ¹	4.27	153	Do.
by 10.....	5.32	14	do.	640 ¹	4.57	153	Do.
Bolts, tire, per 100:							
by 1.....	1.900	14	do.	1,325 ¹	.27	153	Do.
by 14.....	1.852	14	do.	2,000 ¹	.29	153	Do.
by 2.....	1.450	14	do.	2,150 ¹	.32	153	Do.
by 13.....	1.400	14	do.	715 ¹	.43	153	Do.
by 2.....	2.000	14	do.	1,025 ¹	.47	153	Do.
by 24.....	1.200	14	do.	1,300 ¹	.52	153	Do.
by 3.....	700	14	do.	925 ¹	.56	153	Do.
by 2.....	100	14	do.	335 ¹	.66	153	Do.
by 24.....	700	14	do.	635 ¹	.72	153	Do.
by 3.....	400	14	do.	425 ¹	.79	153	Do.
by 8.....	300	14	do.	600 ¹	.85	153	Do.
by 34.....	No award.	14	do.	No award.			Do.
Bolts, window, spring, cast-brass bolt, screw, socket.							
Braces, ratchet, E. B., 10-inch sweep.							
Brads, steel, wire, in 1-pound packages:							
1-inch, 20-gauge.	27	14	San Francisco.	81	1.24	33	St. Louis.
1-inch, 18-gauge.	19 pounds.	14	do.	62 pounds ¹	.19	153	Chicago.
1-inch, 17-gauge.	58 pounds.	14	do.	115 pounds ¹	.12	153	Do.
1-inch, 16-gauge.	100 pounds.	14	do.	150 pounds ¹	.09	153	Do.
1-inch, 15-gauge.	81 pounds.	14	do.	146 pounds ¹	.075	153	Do.
Butts, brass, middle:							
14-inch.	9 dozen pairs.	211	do.	22 dozen pairs ¹	.54	153	Do.
2-inch.	14 dozen pairs.	211	do.	22 dozen pairs ¹	.82	153	Do.
4-inch.	11 dozen pairs.	211	do.	28 dozen pairs ¹	1.53	153	Do.
Butts, loose pin, steel:							
24 by 24 inches.	81	14	do.	29 dozen pairs ¹	.78	153	Do.
3 by 24 inches.	1.08	14	do.	39 dozen pairs ¹	1.08	153	Do.
3 by 24 inches.	1.16	14	do.	45 dozen pairs ¹	1.12	153	Do.
34 by 34 inches.	1.60	14	do.	51 dozen pairs ¹	1.65	153	Do.
44 by 44 inches.	1.70	14	do.	7 dozen pairs ¹	1.96	153	Do.
44 by 44 inches.	2.10	14	do.	4 dozen pairs ¹	2.50	153	Do.
Calder, spring, 6-inch, Yankee pattern.							
Outside.	No award.			34	.51	270	St. Louis.
Inside.	do.			22	.51	270	Do.
Calder, toes, steel:							
No. 1.....	.0925	280	St. Louis.	450 pounds ¹	.065	181	Do.
No. 2.....	.0925	290	do.	625 pounds ¹	.065	181	Do.
No. 3.....	.0625	290	do.	1,260 pounds ¹	.065	181	Do.

¹ Only.

HARDWARE—Continued.

Articles.	Bids opened in San Francisco Apr. 2, 1917.				Bids opened in St. Louis May 23, 1917.			
	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
Cards, cattle, leather back.	No award							
Catches (or turns), iron, cupboard, bronzed.	394.....	\$0.07	308	San Francisco.	163 1.....	\$0.134	153	Chicago.
Chains:					376 1.....	.05	153	Do.
Log, 1/2-inch, short links, with swivel, ordinary hook and grab hook, weighing about 14 pounds per foot, per pound.	23.....	.12	14	do.	27 1.....	.078	153	Do.
Log, 1/2-inch short links, with swivel, ordinary hook and grab hook, weighing about 14 pounds per foot, per pound.	28.....	.11	14	do.	45 1.....	.0725	153	Do.
Trace, 7 feet long, 10 links to the foot, 1/2 wire gauge, with ring and hook.	23.....	.80	14	do.	33.....	.71	32	St. Louis.
Well, 24 inches long, with hook and ring.	None wanted.				No award.			
Chalk lines, assorted colors.	No award.				23 gross 1.....	.79	153	Chicago.
Chisels, 6-inch, braided, medium size.	28 dozen.	.35	308	San Francisco.	63 dozen 1.....	.29	153	Do.
Chisels, c. s., cold, 1/2 by 7-inches, octagon.	25.....	.10	14	do.	150 1.....	.10	238	St. Louis.
Chisels, c. s., socket, corner, 1-inch, handled.	No award.				7 1.....	1.30	153	Chicago.
Chisels, c. s., socket, firmer, sharpened, leather-top handles:								
1-inch.	24.....	.264	211	San Francisco.	35 1.....	.38	153	Do.
1 1/2-inch.	21.....	.264	211	do.	38 1.....	.38	153	Do.
2-inch.	21.....	.325	211	do.	38 1.....	.38	153	Do.
3-inch.	26.....	.375	211	do.	44 1.....	.45	153	Do.
4-inch.	31.....	.474	211	do.	37 1.....	.45	153	Do.
5-inch.	16.....	.55	211	do.	23 1.....	.53	153	Do.
6-inch.	19.....	.60	211	do.	37 1.....	.57	156	Do.
7-inch.	17.....	.67	211	do.	37 1.....	.62	153	Do.
Chisels, c. s., socket, framing, oval back, sharpened and handled:								
1-inch.	No award.				5 1.....	.45	153	Do.
1 1/2-inch.	do.				10 1.....	.45	153	Do.
2-inch.	do.				17 1.....	.45	153	Do.
3-inch.	do.				5 1.....	.50	153	Do.
4-inch.	do.				16 1.....	.55	153	Do.
5-inch.	do.				6 1.....	.60	153	Do.
6-inch.	do.				5 1.....	.65	153	Do.
7-inch.	do.				5 1.....	.80	153	Do.
Clamps:								
Malleable carriage, 10-inch.	2.....	.98	14	San Francisco.	28 1.....	.69	153	Do.
Saw, 9-inch jaw.	8.....	.82	14	do.	28 1.....	.45	153	Do.
Chisels, butcher's, 10-inch.	10.....	1.80	14	do.	29 1.....	1.52	238	St. Louis.
Clippers, toilet (for clipping hair).	49.....	1.20	14	do.	152 pairs.....	1.03	153	Chicago.

	No. a ward	1,021 1,026	14	San Francisco	154 quires	1.20	St. Louis. (See Appendix.)
Cloth, emery, assorted	31,206 square feet.				No award		Do.
Cloth, wire, for screens, in full rolls of 100 lines	None wanted				do		Do.
Cocks, brass, rucking, to screw, loose key, $\frac{1}{2}$ -inch.					61	.42	Chicago.
Cocks, compression gauge, without stuffing box					21	.44	Do.
(for low-pressure boilers):							
$\frac{1}{2}$ -inch pipe thread					61	.53	Do.
$\frac{3}{4}$ -inch pipe thread					61	.57	Do.
Cocks, compression gauge, with stuffing box					91	.63	Do.
(for high-pressure boilers):							
$\frac{1}{2}$ -inch pipe thread					64	.63	Do.
$\frac{3}{4}$ -inch pipe thread					291	.048	Do.
Corkscrews, wood handle					27	2.85	Do.
Crow bars, steel-pointed, wedge, per pound					6 sets	1.43	Do.
Cutters, bolt, for $\frac{1}{2}$ -inch					33	.19	Do.
Extra jaws for cutters, bolt, for $\frac{1}{2}$ -inch					42	.85	Do.
Dividers, c. s., wing:							
6-inch					14	.19	Do.
10-inch					14	.42	Do.
Drills:							
Blacksmith's, vertical					290	7.15	Chicago.
Breast, 2 pairs of jaws, 2 speeds					14	2.20	St. Louis.
Bits, rock, assorted, $\frac{1}{2}$ to $\frac{3}{4}$ inch, by 32ds, less $\frac{1}{2}$					56 sets	1.20	Do.
Blow pipe, 12 sets					36 sets	2.56	Do.
Stamper, shank, jobber's, assorted, $\frac{1}{2}$ to $\frac{3}{4}$ inch by 32ds					42 sets	1.20	Do.
Wood-boring, braces, assorted, $\frac{1}{2}$ to $\frac{3}{4}$ inch, by 32ds					46	.075	Do.
Faucets, wood, cork-lined, best, No. 6					No award		(See Appendix.)
Files, flat, bastard:					do		Do.
10-inch					do		Do.
12-inch					do		Do.
Files, cabinet:					do		Do.
12-inch					do		Do.
14-inch					do		Do.
Files, half round, bastard:					do		Do.
10-inch					do		Do.
12-inch					do		Do.
Files, mill, bastard, 1 round edge:					do		Do.
8-inch					do		Do.
10-inch					do		Do.
12-inch					do		Do.
14-inch					do		Do.
Files, round, bastard:					do		Do.
6-inch					do		Do.
8-inch					do		Do.
12-inch					do		Do.
14-inch					do		Do.

HARDWARE—Continued.

Articles.	Bids opened in San Francisco Apr. 2, 1917.				Bids opened in St. Louis May 23, 1917.			
	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
Filles, double end, taper, with handles:								
7-inch.....	No award			(See appendix)	No award			(See Appendix).
8-inch.....	do			do	do			do.
9-inch.....	do			do	do			do.
10-inch.....	do			do	do			do.
Forks, table, 4 tines, nickel-silver.....	165 dozen	\$1.50	228	San Francisco.	351 dozen	\$1.63	153	Chicago.
Frames, back saw, extension.....	None wanted			San Francisco.	01	.30	153	Do.
Gates, molasses, No. 2.....	9	.35	14	San Francisco.	391	.14	153	Do.
Gauges:								
Marking, brass-mounted.....	9	.23	14	do	211	.23	153	Do.
Mortise, screw-slide.....	15	.56	14	do	771	.53	233	St. Louis.
Slitting, with handle.....	No award				No award			
Glasses, gauge:								
by 8 inches.....	None wanted				do			
by 10 inches.....	do				do			
by 12 inches.....	do				do			
by 10 inches.....	do				do			
by 12 inches.....	do				do			
by 14 inches.....	do				do			
by 16 inches.....	do				do			
by 18 inches.....	do				do			
by 20 inches.....	do				do			
by 12 inches.....	do				do			
by 14 inches.....	do				do			
by 16 inches.....	do				do			
by 18 inches.....	do				do			
by 20 inches.....	do				do			
by 22 inches.....	do				do			
by 24 inches.....	do				do			
by 10 inches.....	do				do			
by 12 inches.....	do				do			
by 14 inches.....	do				do			
by 16 inches.....	do				do			
by 18 inches.....	do				do			
by 20 inches.....	do				do			
by 22 inches.....	do				do			
by 24 inches.....	do				do			
by 12 inches.....	do				do			
by 14 inches.....	do				do			
by 16 inches.....	do				do			
by 18 inches.....	do				do			
by 20 inches.....	do				do			

[illegible]

6 About 90 pounds.

HARDWARE—Continued.

Articles.	Bids opened in San Francisco Apr. 2, 1917.				Bids opened in St. Louis May 25, 1917.			
	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
Hammers—Continued.								
A. E., bell-faced nail, drop-forged, solid c. s., No. 11½.	204.....	\$0.45	14	San Francisco.	382.....	\$0.42	153	Chicago.
Farrier's—								(See Appendix.)
Shoeing, c. s.	14.....	.45	11	do.	No award.			
Furnishing assorted, 2 to 2½ pounds.	12.....	1.73	14	do.	do.			
Machinist's, ballpeen—								
1-pound.	19.....	.595	211	do.	541.....	.35	153	Chicago.
2-pound.	23.....	.64½	211	do.	361.....	.45	153	Do.
Riveting, solid c. s.—								
1½-pound.	11.....	.45	14	do.	19.....	.38	270	St. Louis.
1½-pound.	2.....	.58	14	do.	41.....	.41	270	Do.
1½-pound.	2.....	.70	14	do.	5.....	.44	270	Do.
Sledging, blacksmith's, solid c. s., handled—								
2-pound.	23.....	.80	14	do.	13.....	.42	153	Do.
3-pound.	12.....	.84	14	do.	2.....	.52	153	Do.
6-pound.	6.....	.59	14	do.	7.....	.51	153	Do.
9.....	9.....	.70	14	do.	8.....	.70	153	Do.
10-pound.	5.....	.99	14	do.	23.....	.85	153	Do.
Mason's, solid c. s.—								
Ax finish, 5-pound.	13.....	.90	14	do.	8.....	.89	153	(See Appendix.)
Natural finish, 8-pound.	No award.				No award.			
Truck, upholsterer's pattern.	20.....	.16	14	San Francisco.	191.....	.15	153	Chicago.
Hatchets, c. s.:—								
Broad, 6-inch cut, handled.	25.....	1.45	14	do.	341.....	.918	238	St. Louis.
Lathing, No. 1.	32.....	.70	14	do.	151.....	.42	153	Chicago.
Shingling, No. 2.	10.....	.55	14	do.	561.....	.45	153	Do.
Hasps, hinged:								
6-inch.	36 dozen.	.84	14	do.	90 dozen.	.93	153	Do.
7 dozen.	7 dozen.	1.57	14	do.	29 dozen.	1.75	153	Do.
Hinges, T:								
8-inch, heavy.	No award.				49 dozen pairs.	1.45	33	St. Louis.
10-inch, heavy.	do.				12 dozen pairs.	2.25	33	Do.
12-inch, heavy.	do.				11 dozen pairs.	3.36	153	Chicago.
6-inch, light.	13 dozen pairs.	.77	14	San Francisco.	40 dozen pairs.	.84	33	St. Louis.
Hinges, strap:								
8-inch, heavy.	6 dozen pairs.	1.99	14	do.	31 dozen pairs.	2.10	33	Do.
10-inch, heavy.	7 dozen pairs.	3.00	14	do.	13 dozen pairs.	3.20	33	Do.
12-inch, heavy.	4 dozen pairs.	4.60	14	do.	17 dozen pairs.	5.34	153	Chicago.
6-inch, light.	12 dozen pairs.	.93	14	do.	52 dozen pairs.	.99	33	St. Louis.
8-inch, light.	4 dozen pairs.	1.32	14	do.	17 dozen pairs.	1.30	33	Do.

10-inch, light.	2 dozen pairs.	1.80	14	do.	1 dozen pairs	1.80	83	Do.
12-inch, light.	1 dozen pairs.	2.51	217	do.	2 dozen pairs ¹	2.94	153	Chicago.
Hooks, hat and coat, schoolhouse pattern.	91 dozen.	.20	281	do.	282 dozen ¹	.25	153	Do.
Iron, band, per 100 pounds:								
† by 1.	80 pounds.	4.55	14	do.	713 pounds ¹	4.20	181	St. Louis.
† by 1½.	do.	4.00	14	do.	600 pounds ¹	4.05	181	Do.
† by 1½.	175 pounds.	4.00	4	do.	380 pounds ¹	4.00	181	Do.
† by 1½.	200 pounds.	3.75	290	St. Louis.	625 pounds ¹	4.00	181	Do.
† by 1.	300 pounds.	4.55	14	San Francisco.				
† by 1.	400 pounds.	3.75	290	St. Louis.	730 pounds ¹	4.00	181	Do.
† by 1.	500 pounds.	4.60	14	San Francisco.				
† by 1.	100 pounds.	3.70	290	St. Louis.	975 pounds ¹	3.95	181	Do.
† by 2.	200 pounds.	4.45	14	San Francisco.				
Iron, refined, or soft steel, per 100 pounds:								
† by 1.	250 pounds.	3.75	290	St. Louis.	1,163 pounds ¹	4.00	181	Do.
† by 1½.	350 pounds.	3.60	290	do.	1,075 pounds ¹	3.85	181	Do.
by 1½.	450 pounds.	4.35	14	San Francisco.				
by 2.	550 pounds.	3.60	290	St. Louis.	488 pounds ¹	3.85	181	Do.
by 2½.	650 pounds.	3.60	290	St. Louis.				
by 3.	750 pounds.	3.60	290	St. Louis.	1,000 pounds ¹	3.85	181	Do.
by 4.	850 pounds.	3.60	290	St. Louis.	275 pounds ¹	3.85	181	Do.
† by 2.	950 pounds.	3.60	290	do.	500 pounds ¹	3.85	181	Do.
† by 2.	100 pounds.	4.35	14	San Francisco.	525 pounds ¹	3.85	181	Do.
† by 2.	150 pounds.	3.60	290	St. Louis.				
† by 2.	200 pounds.	4.35	14	San Francisco.	613 pounds ¹	3.85	181	Do.
† by 2.	250 pounds.	3.60	290	St. Louis.	388 pounds ¹	3.85	181	Do.
† by 2.	300 pounds.	3.60	290	St. Louis.	No award			
None wanted.	350 pounds.	3.60	290	St. Louis.	do.			
† by 1.	400 pounds.	3.70	290	do.	575 pounds ¹	3.95	181	Do.
† by 1.	450 pounds.	3.50	290	do.	1,063 pounds ¹	3.75	181	Do.
† by 1.	500 pounds.	4.25	14	San Francisco.				
† by 1½.	550 pounds.	3.50	290	St. Louis.	613 pounds ¹	3.75	181	Do.
† by 1½.	600 pounds.	4.25	14	San Francisco.				
† by 1½.	650 pounds.	3.50	290	St. Louis.	1,025 pounds ¹	3.75	181	Do.
† by 2.	700 pounds.	4.25	14	San Francisco.				
† by 2.	750 pounds.	3.50	290	St. Louis.	1,250 pounds ¹	3.75	181	Do.
† by 2.	800 pounds.	4.25	14	San Francisco.				
† by 2.	850 pounds.	3.50	290	St. Louis.	383 pounds ¹	3.75	181	Do.
† by 2.	900 pounds.	4.25	14	San Francisco.				
† by 2.	950 pounds.	3.50	290	St. Louis.	275 pounds ¹	3.75	181	Do.
† by 2.	100 pounds.	4.25	14	San Francisco.	150 pounds ¹	3.75	181	Do.
† by 2.	100 pounds.	4.25	14	San Francisco.	No award			
None wanted.	100 pounds.	4.75	14	San Francisco.	do.			
† by 1.	200 pounds.	4.75	14	do.	do.			
† by 1.	300 pounds.	4.75	14	do.	188 pounds ¹	3.95	181	Do.
None wanted.	300 pounds.	3.60	290	St. Louis.				
† by 1.	300 pounds.	4.25	14	San Francisco.	1,075 pounds ¹	3.75	181	Do.

¹ Only.

HARDWARE—Continued.

Articles.	Bids opened in San Francisco Apr. 2, 1917.				Bids opened in St. Louis May 25, 1917.			
	Quantity awarded.	Unit price.	No. of con-tractor.	Point of delivery.	Quantity awarded.	Unit price.	No. of con-tractor.	Point of delivery.
Iron, refined, or soft steel, per 100 pounds—Con.								
$\frac{1}{2}$ by 1 $\frac{1}{2}$	150 pounds ¹	\$3.50	290	St. Louis.....	983 pounds ¹	\$3.75	181	St. Louis.
$\frac{1}{2}$ by 1 $\frac{1}{2}$	230 pounds.	4.25	14	San Francisco.	950 pounds ¹	3.75	181	Do.
$\frac{1}{2}$ by 1 $\frac{1}{2}$	100 pounds ¹	3.50	290	St. Louis.....	1,288 pounds ¹	3.75	1	Do.
$\frac{1}{2}$ by 2.....	230 pounds ¹	3.50	290	do.....	175 pounds ¹	3.75	181	Do.
$\frac{1}{2}$ by 2.....	500 pounds.	4.25	14	San Francisco.	250 pounds ¹	3.75	181	Do.
$\frac{1}{2}$ by 2 $\frac{1}{2}$	None wanted.				400 pounds ¹	3.75	181	Do.
$\frac{1}{2}$ by 2 $\frac{1}{2}$	do.				475 pounds ¹	3.75	181	Do.
$\frac{1}{2}$ by 1 $\frac{1}{2}$	do.				250 pounds ¹	3.75	181	Do.
$\frac{1}{2}$ by 2.....	do.							
$\frac{1}{2}$ by 2 $\frac{1}{2}$	do.							
Iron, refined, round, per 100 pounds:								
$\frac{1}{4}$ -inch.....	625 pounds ¹	3.80	290	St. Louis.....	1,983 pounds ¹	4.10	181	Do.
$\frac{1}{4}$ -inch.....	115 pounds.	3.60	14	San Francisco.				
$\frac{1}{4}$ -inch.....	526 pounds.	3.75	290	St. Louis.....	2,848 pounds ¹	4.00	181	Do.
$\frac{1}{4}$ -inch.....	130 pounds.	3.50	14	San Francisco.				
$\frac{1}{4}$ -inch.....	170 pounds.	3.70	290	St. Louis.....	2,110 pounds ¹	3.95	131	Do.
$\frac{1}{4}$ -inch.....	170 pounds.	4.45	14	San Francisco.				
$\frac{1}{4}$ -inch.....	1,580 pounds ¹	3.60	290	St. Louis.....	3,540 pounds ¹	3.85	181	Do.
$\frac{1}{4}$ -inch.....	1,580 pounds.	4.35	14	San Francisco.				
$\frac{1}{4}$ -inch.....	400 pounds ¹	3.60	290	St. Louis.....	400 pounds ¹	3.85	181	Do.
$\frac{1}{4}$ -inch.....	100 pounds.	4.35	14	San Francisco.				
$\frac{1}{4}$ -inch.....	190 pounds.	3.55	290	St. Louis.....	300 pounds ¹	3.80	181	Do.
$\frac{1}{4}$ -inch.....	125 pounds ¹	3.50	290	San Francisco.				
$\frac{1}{4}$ -inch.....	160 pounds.	3.50	290	St. Louis.....	2,850 pounds ¹	3.75	181	Do.
$\frac{1}{4}$ -inch.....	1,000 pounds ¹	4.25	14	San Francisco.	1,875 pounds ¹	3.75	181	Do.
$\frac{1}{4}$ -inch.....	1,000 pounds.	3.50	290	St. Louis.....	1,700 pounds ¹	3.75	181	Do.
Iron, sheet (submit samples 8 inches square of each kind), per 100 pounds:								
Juniata, galvanized, 30 by 96 inches, No. 26.	No award.				3,150 pounds ¹	11.00	291	Do.
One pass cold-rolled sheets, 16 gauge, size 30 by 96 inches, $\frac{1}{4}$ -inch thick.	do.				No award.			
One pass cold-rolled sheets, 20 gauge, size 30 by 96 inches.	do.							
Iron, refined, square, per 100 pounds:					600 pounds ¹	9.30	291	Do.
$\frac{1}{4}$ -inch.....	25 pounds ¹	3.75	290	St. Louis.....				
$\frac{1}{4}$ -inch.....	300 pounds ¹	3.60	290	do.....	438 pounds ¹	4.00	181	Do.
$\frac{1}{4}$ -inch.....	260 pounds.	4.30	14	San Francisco.	450 pounds ¹	3.85	181	Do.

1-inch.....	25 pounds ¹	3.55	200 St. Louis.....	613 pounds ¹	3.80	181	Do.
1-inch.....	100 pounds.....	4.30	14 San Francisco.....	563 pounds ¹	3.75	181	Do.
1-inch.....	200 pounds.....	3.50	200 St. Louis.....	900 pounds ¹	3.75	181	Do.
1-inch.....	600 pounds.....	3.50	14 San Francisco.....	430 dozen ¹	2.41	133	Chicago.
Knives:	144 dozen.....	2.71	211 do.....	85 ¹.....	.06	133	Do.
Table, round handle, nickel-silver.....	42.....	.076	14 do.....	47 dozen ¹	2.18	133	Do.
Bread, thin blade.....	22 dozen.....	2.75	228 do.....	76 sets ¹	1.09	133	Do.
Butcher, 8-inch, beech handle, without bolster.....	5 pairs.....	1.26	No award.....	32 ¹.....	.07	133	Do.
Carving, and forks, forged, with bolster and guard, per pair.....	No award.....		14 San Francisco.....	18 ¹.....	.80	238	St. Louis.
Chopping, hollow iron handle, forged blade.....	8.....	.80	14 do.....	22 ¹.....	.92	238	Do.
Drawing, c.s., carpenter's, hollow ground—10-inch.....	8.....	.04	14 do.....	49.....	.20	133	Chicago.
12-inch.....	46.....	.34	14 do.....	No award.....			
Horseshoeing.....	90.....	.16	14 do.....	80.....	.17	133	Do.
Putty, with bolster.....	16.....	.16	No award.....	No award.....			
Skinning, 6-inch, beech handle, without bolster.....	No award.....		14 San Francisco.....	No award.....	.80	133	Do.
Latches, thumb, heavy, all wrought.....	18.....	1.10					
Locks:	None wanted.....						
Close, rim, dead, 2-tumbler, 3½-inch, brass bolt, with key.....	do.....						
Drawer, 2-tumbler, 2½ by 2 inches, iron, with key.....	do.....						
Horizontal rim, porcelain knob, brass bolt, with key, as follows—	do.....						
4-inch.....	do.....						
4½-inch.....	do.....						
5-inch.....	do.....						
6-inch.....	do.....						
Spring, pad, 3-tumbler, or more, two keys, assorted combinations—	do.....						
Suitable for outside use.....	do.....						
Suitable for inside use.....	do.....				.50	133	Do.
Sash, heavy, wrought, bronzed.....	do.....						
Lock sets, 3½-inch, mortise, jet knobs, bronzed-steel combined rose and escutcheon, brass bolts, with key.....	do.....						
Mallets, carpenter's, hickory, round, 6 by 4 inches.....	8.....	.29	14 San Francisco.....	50 ¹.....	.14	133	Do.
Measure, tape, 75-foot, linen tape and leather case.....	5.....	.95	14 do.....	50 ¹.....	.45	133	Do.
Nails, gilt upholstery's, size 43, per M.....	54 thousand.....	.95	211 do.....	64.....	.98	33	St. Louis.
Nails, wire steel, per 100 pounds:	1,475 pounds.....	4.65	14 do.....	2,710 pounds ¹	4.00	134	Woodlawn, Pa.
34.....	625 pounds.....	4.60	14 do.....	3,470 pounds ¹	3.95	134	Do.
34.....	1,625 pounds.....	4.45	14 do.....	1,410 pounds ¹	3.80	134	Do.

¹ Only.

	do.	(See Appendix)		do.		Do.
Packing, asbestos sheet.	133 pounds.	87	San Francisco.	647	.55	Akron, Ohio.
1/4-inch, in rolls.	26 pounds.	87	do.	72	.55	Do.
Packing, canvas duck, square spiral, piston, for pumps, and other cold-water machinery.						
1/4-inch.	12 pounds.	297	do.	20 pounds.	.53	St. Louis.
1/4-inch.	5 pounds.	297	do.	33 pounds.	.53	Do.
1/4-inch.	22 pounds.	297	do.	33 pounds.	.53	Do.
1/4-inch.	5 pounds.	297	do.	33 pounds.	.53	Do.
1/4-inch.	1 pound.	297	do.	145 pounds.	.53	Do.
1/4-inch.	None.	297	do.	None.	.53	Do.
1/4-inch.	28 pounds.	297	do.	33 pounds.	.53	Do.
1/4-inch.	None.	297	do.	None.	.53	Do.
1/4-inch.	do.	297	do.	50 pounds.	.53	Do.
1/4-inch.	do.	297	do.	None.	.53	Do.
1/4-inch.	15 pounds.	297	do.	5 pounds.	.53	Do.
Packing, square spiral, steam piston:						Akron, Ohio.
1/4-inch.	22 pounds!	198	do.	59 pounds.	.425	Do.
1/4-inch.	18 pounds!	198	do.	25 pounds.	.425	Do.
1/4-inch.	29 pounds!	198	do.	96 pounds.	.425	Do.
1/4-inch.	6 pounds!	198	do.	15 pounds.	.425	Do.
1/4-inch.	35 pounds!	198	do.	101 pounds.	.425	Do.
1/4-inch.	None.	198	do.	None.	.425	Do.
1/4-inch.	83 pounds!	198	do.	29 pounds.	.425	Do.
1/4-inch.	5 pounds!	198	do.	None.	.425	Do.
1/4-inch.	2 pounds!	198	do.	25 pounds.	.425	Do.
1/4-inch.	None.	198	do.	None.	.425	Do.
1/4-inch.	1 pound!	198	do.	None.	.425	Do.
1/4-inch.	None.	198	do.	1 pound.	.425	Do.
1/4-inch.	3 pounds!	198	do.	None.	.425	Do.
Packing, round spiral, steam piston:						St. Louis.
1/4-inch.	9 pounds.	297	do.	16 pounds.	.60	Do.
1/4-inch.	9 pounds.	297	do.	12 pounds.	.60	Do.
1/4-inch.	23 pounds.	297	do.	31 pounds.	.60	Do.
1/4-inch.	7 pounds.	297	do.	2 pounds.	.60	Do.
1/4-inch.	23 pounds.	297	do.	46 pounds.	.515	Akron, Ohio.
1/4-inch.	None.	297	do.	None.	.515	Do.
1/4-inch.	do.	297	do.	80 pounds.	.515	Do.
1/4-inch.	do.	297	do.	20 pounds.	.515	Do.
1/4-inch.	6 pounds.	297	do.	None.	.47	Do.
1/4-inch.	None.	297	do.	do.	.47	Do.
1/4-inch.	do.	297	do.	7 pounds.	.47	Do.
1/4-inch.	2 pounds.	297	do.	None.	.47	Do.
Packing, sheet gasket, rubber, for steam joints for pressure below 150 pounds per square inch:						St. Louis.
1/4-inch.	64 pounds.	87	do.	40 pounds.	.28	Do.
1/4-inch.	135 pounds.	87	do.	432 pounds.	.28	Do.
1/4-inch.	62 pounds.	87	do.	286 pounds.	.28	Do.
1/4-inch.	55 pounds.	87	do.	97 pounds.	.28	Do.

1 Only.

HARDWARE—Continued.

Bids opened in San Francisco Apr. 2, 1917.

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
Packing, cloth-inserted, rubber sheet, for gaskets:												
1/2-inch.....	35 pounds.....	\$0.13	95	San Francisco.....	2 pounds.....							
1/2-inch.....	76 pounds.....	.13	95	do.....	100 pounds.....							
1/2-inch.....	20 pounds.....	.13	95	do.....	100 pounds.....							
1/2-inch.....	30 pounds.....	.13	95	do.....	100 pounds.....							
Packing, twisted-fiber, graphite valve-stem												
packing, 1/2-inch (about).....	32 pounds.....	.73	87	do.....	100 pounds.....							
Packing, hemp, square:												
1/2-inch.....	44 pounds.....	.24	95	do.....	55 pounds.....							
1/2-inch.....	5 pounds.....	.24	95	do.....	18 pounds.....							
Paper, sand (assorted).....	329 quires.....	()	211	do.....	683 quires.....							
Pencils, carpenter's, 7-inch.....	67 dozen.....	.27	237	do.....	145 dozen.....							
Pinchers, blacksmith's, shoeing.....	17.....	.50	14	do.....	34.....							
Planes:												
Block, 6-inch, knuckle joint.....	17.....	.95	211	do.....	42.....							
Fore, adjustable, wood bottoms.....	3.....	1.60	211	do.....	8.....							
Wood, hollow and round, c. s.—												
1-inch.....	No award.....				No award.....							
1 1/2-inch.....	do.....				do.....							
1 1/2-inch.....	do.....				do.....							
Jack adjustable, wood bottoms.....	14.....	1.30	211	San Francisco.....	19.....							
Jointers, adjustable, wood bottoms.....	12.....	1.75	211	do.....	10.....							
Machine, iron—												
1-inch.....	No award.....				No award.....							
1-inch.....	do.....				do.....							
Plow, submerging heading and center-head-												
ing plow, rubber and roller, dado, plow,	3.....	0.50	14	San Francisco.....	8.....							
machining and sitting plow.....												
Rebar, iron, 1-inch.....	1.....	1.85	308	do.....	None wanted.....							
Rebar, iron—												
1-inch.....	1.....	1.35	308	do.....	8.....							
1-inch.....	5.....	1.35	308	do.....	1.....							
1-inch.....	14.....	1.05	211	do.....	16.....							
Smooth, adjustable, wood bottoms.....												
Pliers:												
Combination, 6-inch.....	59.....	.50	211	San Francisco.....	25.....							
Slide-cutting, 7-inch, heavy.....	17.....	.50	11	do.....	142.....							
Round-nose, 7-inch, heavy.....	17.....	.50	11	do.....	35.....							
End-cutting nippers, reversible blade, 10-	11.....	1.50	308	do.....	34.....							
inch, heavy.....												
Presses, metal.....	No award.....				No award.....							

(See Appendix.)

	do.	14	San Francisco.	do.	Chicago.
Punches:					
Hand, oval, Nos. 1 to 18.	22	.60	San Francisco.	do.	153
Harness, spring, revolving, 6 tubes.	No sward.				{ .60 .06 153
Saddler's, c. s., round, to drive, assorted,					{ .09 153 Do. .11 153 Do. .32 153 Do.
Nos. 1 to 12.	do.				
Conductor's, assorted shapes of holes, heavy.					St. Louis.
Rasps, horse, alim:	3.	.32	San Francisco.	45 ^s .	238
12-inch.	No sward.			109 ^s .	238
14-inch, floor.	do.			379 ^s .	238
16-inch, floor.	do.			33 ^s .	238
Rasps, shoe, regular, oval:	do.			70 ^s .	505
8-inch.	do.				238
10-inch.	do.				238
Rasps, wood:					Chicago.
Flat, 12-inch.	29	.43	San Francisco.	31 ^s .	153
Flat, 14-inch.	23	.58	do.	75 ^s .	153
Half round, 12-inch.	16	.46	do.	50 ^s .	153
Half round, 14-inch.	12	.60	do.	74 ^s .	153
Rivet sets, polished and blued:					Do.
No. 2.	5 ^s .	.38	117	do.	153
No. 3.	8 ^s .	.50	117	do.	153
No. 4.	1 ^s .	.20	117	do.	153
Rivets and burrs, copper, in 1-pound boxes:					Do.
1-inch, No. 8.	5 pounds.	.60	14	do.	465
1-inch, No. 8.	12 pounds.	.60	14	do.	465
1-inch, No. 8.	27 pounds.	.60	14	do.	465
1-inch, No. 8.	31 pounds.	.60	14	do.	465
1-inch, No. 8.	11 pounds.	.60	14	do.	465
1-inch, No. 8.	11 pounds.	.60	14	do.	465
1-inch, No. 10.	11 pounds.	.60	14	do.	465
1-inch, No. 10.	11 pounds.	.60	14	do.	465
1-inch, No. 10.	11 pounds.	.60	14	do.	465
1-inch, No. 10.	11 pounds.	.60	14	do.	465
1-inch, No. 10.	11 pounds.	.60	14	do.	465
1-inch, No. 12.	1 pound.	.70	14	do.	465
1-inch, No. 12.	1 pound.	.70	14	do.	465
1-inch, No. 12.	4 pounds.	.70	14	do.	465
1-inch, No. 12.	7 pounds.	.70	14	do.	465
1-inch, No. 12.	8 pounds.	.70	14	do.	465
Rivets, iron, oval head:					Do.
1-inch diameter, 1 inch long.	No sward.			No sward.	153
1-inch diameter, 1 inch long.	do.			do.	153
1-inch diameter, 1 inch long.	do.			do.	153
1-inch diameter, 1 inch long.	do.			do.	153
1-inch diameter, 2 inches long.	do.			do.	153
1-inch diameter, 2 inches long.	do.			do.	153
1-inch diameter, 1 inch long.	do.			do.	153
1-inch diameter, 1 inch long.	do.			do.	153
1-inch diameter, 1 inch long.	do.			do.	153
1-inch diameter, 2 inches long.	do.			do.	153

No. 00, \$0.21 per quire. No. 0, \$0.21 per quire. No. 1, \$0.21 per quire. No. 2, \$0.23 per quire. No. 3, \$0.23 per quire. No. 4, \$0.23 per quire. No. 5, \$0.23 per quire. No. 6, \$0.23 per quire. No. 7, \$0.23 per quire. No. 8, \$0.23 per quire. No. 9, \$0.23 per quire. No. 10, \$0.23 per quire. No. 11, \$0.23 per quire. No. 12, \$0.23 per quire. No. 13, \$0.23 per quire. No. 14, \$0.23 per quire. No. 15, \$0.23 per quire. No. 16, \$0.23 per quire. No. 17, \$0.23 per quire. No. 18, \$0.23 per quire. No. 19, \$0.23 per quire. No. 20, \$0.23 per quire. No. 21, \$0.23 per quire. No. 22, \$0.23 per quire. No. 23, \$0.23 per quire. No. 24, \$0.23 per quire. No. 25, \$0.23 per quire. No. 26, \$0.23 per quire. No. 27, \$0.23 per quire. No. 28, \$0.23 per quire. No. 29, \$0.23 per quire. No. 30, \$0.23 per quire. No. 31, \$0.23 per quire. No. 32, \$0.23 per quire. No. 33, \$0.23 per quire. No. 34, \$0.23 per quire. No. 35, \$0.23 per quire. No. 36, \$0.23 per quire. No. 37, \$0.23 per quire. No. 38, \$0.23 per quire. No. 39, \$0.23 per quire. No. 40, \$0.23 per quire. No. 41, \$0.23 per quire. No. 42, \$0.23 per quire. No. 43, \$0.23 per quire. No. 44, \$0.23 per quire. No. 45, \$0.23 per quire. No. 46, \$0.23 per quire. No. 47, \$0.23 per quire. No. 48, \$0.23 per quire. No. 49, \$0.23 per quire. No. 50, \$0.23 per quire. No. 51, \$0.23 per quire. No. 52, \$0.23 per quire. No. 53, \$0.23 per quire. No. 54, \$0.23 per quire. No. 55, \$0.23 per quire. No. 56, \$0.23 per quire. No. 57, \$0.23 per quire. No. 58, \$0.23 per quire. No. 59, \$0.23 per quire. No. 60, \$0.23 per quire. No. 61, \$0.23 per quire. No. 62, \$0.23 per quire. No. 63, \$0.23 per quire. No. 64, \$0.23 per quire. No. 65, \$0.23 per quire. No. 66, \$0.23 per quire. No. 67, \$0.23 per quire. No. 68, \$0.23 per quire. No. 69, \$0.23 per quire. No. 70, \$0.23 per quire. No. 71, \$0.23 per quire. No. 72, \$0.23 per quire. No. 73, \$0.23 per quire. No. 74, \$0.23 per quire. No. 75, \$0.23 per quire. No. 76, \$0.23 per quire. No. 77, \$0.23 per quire. No. 78, \$0.23 per quire. No. 79, \$0.23 per quire. No. 80, \$0.23 per quire. No. 81, \$0.23 per quire. No. 82, \$0.23 per quire. No. 83, \$0.23 per quire. No. 84, \$0.23 per quire. No. 85, \$0.23 per quire. No. 86, \$0.23 per quire. No. 87, \$0.23 per quire. No. 88, \$0.23 per quire. No. 89, \$0.23 per quire. No. 90, \$0.23 per quire. No. 91, \$0.23 per quire. No. 92, \$0.23 per quire. No. 93, \$0.23 per quire. No. 94, \$0.23 per quire. No. 95, \$0.23 per quire. No. 96, \$0.23 per quire. No. 97, \$0.23 per quire. No

HARDWARE—Continued.

Articles.	Bids opened in San Francisco Apr. 2, 1917.				Bids opened in St. Louis May 25, 1917.			
	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
Files, double end, taper, with handles:								
7-inch.....	No award.....			(See appendix)	No award.....			(See Appendix).
8-inch.....	do.....			do.....	do.....			Do.....
9-inch.....	do.....			do.....	do.....			Do.....
10-inch.....	do.....			do.....	do.....			Do.....
Forks, table, 4 tines, nickel-silver.....	165 dozen.....	\$1.50	228	San Francisco.	351 dozen 1.....	\$1.63	153	Chicago.
Frames, hack saw, extension.....	None wanted.....			San Francisco.	91.....	.30	153	Do.....
Gates, molasses, No. 2.....	9.....	.35	14	San Francisco.	39 1.....	.14	153	Do.....
Gauges:								
Marking, brass-mounted.....	9.....	.23	14	do.....	21 1.....	.22	153	Do.....
Mortise, screw-slide.....	15.....	.55	14	do.....	77 1.....	.52	233	St. Louis.
Silting, with handle.....	No award.....			do.....	No award.....			
Glasses, gauge:								
by 8 inches.....	None wanted.....				do.....			
by 10 inches.....	do.....				do.....			
by 12 inches.....	do.....				do.....			
by 14 inches.....	do.....				do.....			
by 16 inches.....	do.....				do.....			
by 18 inches.....	do.....				do.....			
by 20 inches.....	do.....				do.....			
by 22 inches.....	do.....				do.....			
by 24 inches.....	do.....				do.....			
by 26 inches.....	do.....				do.....			
by 28 inches.....	do.....				do.....			
by 30 inches.....	do.....				do.....			
by 32 inches.....	do.....				do.....			
by 34 inches.....	do.....				do.....			
by 36 inches.....	do.....				do.....			
by 38 inches.....	do.....				do.....			
by 40 inches.....	do.....				do.....			
by 42 inches.....	do.....				do.....			
by 44 inches.....	do.....				do.....			
by 46 inches.....	do.....				do.....			
by 48 inches.....	do.....				do.....			
by 50 inches.....	do.....				do.....			
by 52 inches.....	do.....				do.....			
by 54 inches.....	do.....				do.....			
by 56 inches.....	do.....				do.....			
by 58 inches.....	do.....				do.....			
by 60 inches.....	do.....				do.....			

[illegible]**1 Only.**

2 50-pound tins.

3 25-pound tins.

• 10-pound tins.

‘ About 80 pounds.

HARDWARE—Continued.

Articles.	Bids opened in San Francisco Apr. 2, 1917.				Bids opened in St. Louis May 25, 1917.			
	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
Hammers—Continued.								
A. E. bell-faced nail, drop-forged, solid c. s., No. 11½.	204.....	\$0.45	14	San Francisco.	382.....	\$0.42	153	Chicago.
Farrier's—								
Shoeing, c. s.....	14.....	.45	11	do.....	No award.....			(See Appendix.)
Turning, assorted, 2 to 2½ pounds.	12.....	1.73	14	do.....	do.....			
Machinist's, ball peen—								
1½-pound.....	19.....	.525	211	do.....	54¹.....	.35	153	Chicago.
2-pound.....	23.....	.64½	211	do.....	36¹.....	.45	153	Do.
Riveting, solid c. s.—								
1½-pound.....	11.....	.45	14	do.....	19.....	.38	270	St. Louis.
1½-pound.....	2.....	.58	14	do.....	17.....	.41	270	Do.
1½-pound.....	2.....	.70	14	do.....	5.....	.44	270	Do.
Sledge, blacksmith's, solid c. s., handled—								
2-pound.....	23.....	.80	14	do.....	13.....	.42	153	Do.
3-pound.....	12.....	.84	14	do.....	2.....	.52	153	Do.
6-pound.....	6.....	.59	14	do.....	7.....	.51	153	Do.
8-pound.....	9.....	.79	14	do.....	8.....	.70	153	Do.
10-pound.....	5.....	.99	14	do.....	23.....	.85	153	Do.
Mason's, solid c. s.—								
A x finish, 5-pound.....	13.....	.90	14	do.....	8.....	.89	153	(See Appendix.)
Natural finish, 8-pound.....	No award.....				No award.....			
Tack, upholsterer's pattern.....	20.....	.16	14	San Francisco.	19¹.....	.15	153	Chicago.
Hatchets, c. s.:—								
Broad, 6-inch cut, handled.....	25.....	1.45	14	do.....	34¹.....	.918	238	St. Louis.
Lathing, No. 1.....	32.....	.70	14	do.....	15¹.....	.42	153	Chicago.
Shingling, No. 2.....	10.....	.55	14	do.....	56¹.....	.45	153	Do.
Heaps, hinge:								
6-inch.....	36 dozen.....	.84	14	do.....	90 dozen¹.....	.93	153	Do.
10-inch.....	7 dozen.....	1.57	14	do.....	29 dozen¹.....	1.76	153	Do.
Hinges, i—								
3-inch, heavy.....	No award.....				49 dozen pairs¹.....	1.45	33	St. Louis.
12-inch, heavy.....	do.....				12 dozen pairs¹.....	2.26	33	Do.
6-inch, light.....	do.....				11 dozen pairs¹.....	2.36	153	Chicago.
8-inch, light.....	12 dozen pairs.....	.77	14	San Francisco.	40 dozen pairs¹.....	.84	33	St. Louis.
Hinges, acap:								
3-inch, heavy.....	6 dozen pairs.....	1.99	14	do.....	31 dozen pairs.....	2.10	33	Do.
10-inch, heavy.....	7 dozen pairs.....	3.00	14	do.....	13 dozen pairs.....	3.20	33	Do.
12-inch, heavy.....	4 dozen pairs.....	4.60	14	do.....	17 dozen pairs¹.....	5.34	153	Chicago.
6-inch, light.....	12 dozen pairs.....	.93	14	do.....	52 dozen pairs.....	.89	33	St. Louis.
8-inch, light.....	4 dozen pairs.....	1.32	14	do.....	17 dozen pairs.....	1.30	33	Do.

10-inch, light	2 dozen pairs	1.80	14	do	1 dozen pairs	1.80	38	Do.
12-inch, light	1 dozen pairs	3.51	211	do	2 dozen pairs ¹	2.04	153	Chicago.
Hooks hat and coat, schoolhouse pattern	91 dozen	.20	237	do	202 dozen ¹	.25	153	Do.
Iron, band, per 100 pounds:								St. Louis
† by 1	50 pounds	4.05	14	do	713 pounds ¹	4.20	181	Do.
† by 2	do	4.80	14	do	600 pounds ¹	4.05	181	Do.
† by 3	175 pounds	4.80	4	do	380 pounds ¹	4.00	181	Do.
† by 4	230 pounds	3.75	200	St. Louis	925 pounds ¹	4.00	181	Do.
† by 1	300 pounds	4.55	14	San Francisco	730 pounds ¹	4.00	181	Do.
† by 2	600 pounds	3.75	200	St. Louis	975 pounds ¹	3.95	181	Do.
† by 3	900 pounds	4.50	14	San Francisco				
† by 4	1100 pounds	3.70	200	St. Louis				
Iron, refined, or soft steel, per 100 pounds:	250 pounds	4.45	14	San Francisco				
† by 1	250 pounds	3.75	200	St. Louis	1,163 pounds ¹	4.00	181	Do.
† by 2	500 pounds	3.60	200	do	1,075 pounds ¹	3.85	181	Do.
† by 3	750 pounds	4.35	14	San Francisco				
† by 4	1,000 pounds	3.60	200	St. Louis	488 pounds ¹	3.85	181	Do.
† by 2	1,000 pounds	4.35	14	San Francisco				
† by 3	1,500 pounds	3.60	200	St. Louis	1,000 pounds ¹	3.85	181	Do.
† by 4	2,000 pounds	4.35	14	San Francisco	275 pounds ¹	3.85	181	Do.
† by 2	2,000 pounds	3.60	200	St. Louis	500 pounds ¹	3.85	181	Do.
† by 3	2,250 pounds	3.60	200	do				
† by 4	3,000 pounds	4.35	14	San Francisco	525 pounds ¹	3.85	181	Do.
† by 2	3,000 pounds	3.60	200	St. Louis				
† by 3	3,500 pounds	4.35	14	San Francisco	613 pounds ¹	3.85	181	Do.
† by 4	4,000 pounds	3.60	200	St. Louis	388 pounds ¹	3.85	181	Do.
† by 2	None wanted				No award			
† by 3	100 pounds	3.60	200	St. Louis	do			
† by 4	350 pounds	3.70	200	do	575 pounds ¹	3.95	181	Do.
† by 1	100 pounds	3.60	200	do				
† by 2	100 pounds	4.25	14	San Francisco	1,063 pounds ¹	3.75	181	Do.
† by 3	200 pounds	4.25	200	St. Louis				
† by 4	300 pounds	4.25	14	San Francisco	613 pounds ¹	3.75	181	Do.
† by 1	400 pounds	4.25	200	St. Louis				
† by 2	500 pounds	4.25	200	San Francisco	1,025 pounds ¹	3.75	181	Do.
† by 3	600 pounds	4.25	14	St. Louis				
† by 4	700 pounds	4.25	200	San Francisco	1,250 pounds ¹	3.75	181	Do.
† by 2	1,000 pounds	4.25	14	St. Louis				
† by 3	1,000 pounds	4.25	200	San Francisco	383 pounds ¹	3.75	181	Do.
† by 4	1,000 pounds	4.25	14	St. Louis				
† by 2	1,000 pounds	4.25	200	San Francisco	275 pounds ¹	3.75	181	Do.
† by 3	1,000 pounds	4.25	14	St. Louis	150 pounds ¹	3.75	181	Do.
† by 4	1,000 pounds	4.25	14	San Francisco	No award			
† by 2	None wanted				do			
† by 3	200 pounds	4.75	14	San Francisco				
† by 4	100 pounds	4.75	14	do	158 pounds ¹	3.95	181	Do.
† by 1	None wanted							
† by 2	300 pounds	3.50	200	St. Louis	1,075 pounds ¹	3.75	181	Do.
† by 3	300 pounds	4.25	14	San Francisco				

¹ Only.

HARDWARE—Continued.

Articles.	Bids opened in San Francisco Apr. 2, 1917.				Bids opened in St. Louis May 25, 1917.			
	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
Iron, refined, or soft steel, per 100 pounds—Con.								
$\frac{1}{2}$ by 14.....	1150 pounds 1	\$3.50	200	St. Louis.....	963 pounds 1	\$3.75	181	St. Louis.
$\frac{1}{2}$ by 14.....	200 pounds 1	4.25	14	San Francisco.....	950 pounds 1	3.75	181	Do.
$\frac{1}{2}$ by 1.....	100 pounds 1	3.50	200	do.....	1,288 pounds 1	3.75	1	Do.
$\frac{1}{2}$ by 2.....	500 pounds 1	3.50	200	San Francisco.....	175 pounds 1	3.75	181	Do.
$\frac{1}{2}$ by 21.....	None wanted.	4.25	14		250 pounds 1	3.75	181	Do.
$\frac{1}{2}$ by 21.....	do.....				400 pounds 1	3.75	181	Do.
$\frac{1}{2}$ by 14.....	do.....				475 pounds 1	3.75	181	Do.
$\frac{1}{2}$ by 2.....	do.....				250 pounds 1	3.75	181	Do.
$\frac{1}{2}$ by 21.....	do.....							
Iron, refined, round, per 100 pounds:								
$\frac{1}{2}$ -inch.....	425 pounds 1	3.80	200	St. Louis.....	1,968 pounds 1	4.10	181	Do.
$\frac{1}{2}$ -inch.....	115 pounds.....	4.60	14	San Francisco.....	2,848 pounds 1	4.00	181	Do.
$\frac{1}{2}$ -inch.....	625 pounds 1	3.75	200	St. Louis.....				
$\frac{1}{2}$ -inch.....	320 pounds.....	4.50	14	San Francisco.....	2,110 pounds 1	3.95	181	Do.
$\frac{1}{2}$ -inch.....	1,200 pounds 1	3.70	200	St. Louis.....	3,540 pounds 1	3.85	181	Do.
$\frac{1}{2}$ -inch.....	770 pounds.....	4.45	14	San Francisco.....	400 pounds 1	3.85	181	Do.
$\frac{1}{2}$ -inch.....	1,850 pounds 1	3.60	200	St. Louis.....	300 pounds 1	3.80	181	Do.
$\frac{1}{2}$ -inch.....	1,580 pounds 1	4.35	14	San Francisco.....				
$\frac{1}{2}$ -inch.....	400 pounds 1	3.60	200	St. Louis.....	2,850 pounds 1	3.75	181	Do.
$\frac{1}{2}$ -inch.....	100 pounds.....	3.60	200	San Francisco.....	1,875 pounds 1	3.75	181	Do.
$\frac{1}{2}$ -inch.....	740 pounds 1	3.55	200	St. Louis.....	1,700 pounds 1	3.75	181	Do.
$\frac{1}{2}$ -inch.....	350 pounds.....	4.30	14	San Francisco.....				
$\frac{1}{2}$ -inch.....	1,225 pounds 1	3.50	200	St. Louis.....	3,150 pounds 1	11.00	291	Do.
$\frac{1}{2}$ -inch.....	600 pounds 1	3.50	200	do.....	No award.....			
$\frac{1}{2}$ -inch.....	150 pounds.....	4.25	14	San Francisco.....				
$\frac{1}{2}$ -inch.....	1,000 pounds 1	3.50	200	St. Louis.....				
Iron, sheet (submit samples 8 inches square of each kind), per 100 pounds:								
Junata, galvanized, 30 by 96 inches, No. 26.	No award.....				3,150 pounds 1		291	Do.
One pass cold-rolled sheets, 16 gauge, size 30 by 96 inches, $\frac{1}{2}$ -inch thick.	do.....				No award.....			
One pass cold-rolled sheets, 26 gauge, size 30 by 96 inches.	do.....				600 pounds 1	9.30	291	Do.
Iron, refined, square, per 100 pounds:								
$\frac{1}{2}$ -inch.....	25 pounds 1	3.75	200	St. Louis.....	438 pounds 1	4.00	181	Do.
$\frac{1}{2}$ -inch.....	300 pounds 1	3.60	200	do.....	450 pounds 1	3.85	181	Do.
$\frac{1}{2}$ -inch.....	250 pounds.....	4.35	14	San Francisco.....				

4-inch.....	25 pounds 1.....	3.55	200	St. Louis.....	513 pounds 1.....	3.80	181	Do.
4-inch.....	100 pounds.....	4.30	14	San Francisco.....				
4-inch.....	200 pounds 1.....	3.50	200	St. Louis.....	563 pounds 1.....	3.75	181	Do.
4-inch.....	50 pounds.....	4.25	14	San Francisco.....				
4-inch.....	600 pounds 1.....	3.50	200	St. Louis.....	800 pounds 1.....	3.75	181	Do.
Knives:								
Table round handle, nickel-silver.....	144 dozen.....	2.71	228	San Francisco.....	430 dozen 1.....	2.41	153	Chicago.
Bread, thin blade.....	42.....	.076	211	do.....	85 1.....	.06	153	Do.
Butcher, 8-inch, beech handle, without bolster.....	23 dozen.....	2.75	14	do.....	47 dozen 1.....	2.18	153	Do.
Carving, and forks, forged, with bolster and guard, per pair.....	5 pairs.....	1.26	228	do.....	76 sets 1.....	1.09	153	Do.
Chopping, hollow iron handle, forged blade.....	No award.....				82 1.....	.07	153	Do.
Drawing, c. s., carpenter's, hollow ground—10-inch.....	8.....	.80	14	San Francisco.....	18 1.....	.80	238	St. Louis.
12-inch.....	8.....	.94	14	do.....	22 1.....	.92	238	Do.
Horseshoeing.....	49.....	.34	14	do.....	49.....	.29	153	Chicago.
Putty, with bolster.....	16.....	.16	14	do.....	No award.....			
Skimming, 6-inch, beech handle, without bolster.....	16.....	.16	14	do.....	60.....	.17	153	Do.
Latches, thumb, heavy, all wrought.....	No award.....				No award.....			
Lovels, spirit, with plumb, 30-inch, adjustable.....	18.....	1.10	14	San Francisco.....	57.....	.80	153	Do.
Locks:								
Closet, rim, dead, 2-tumbler, 3½-inch, brass bolt, with key.....	None wanted.....				No award.....			
Drawer, 2-tumbler, 2½ by 2 inches, iron, with key.....	do.....				do.....			
Horizontal rim, porcelain knob, brass bolt, with key, as follows—								
4-inch.....	do.....				do.....			
4½-inch.....	do.....				do.....			
5-inch.....	do.....				do.....			
6-inch.....	do.....				do.....			
Spring, pad, 3-tumbler, or more, two keys, assorted combinations—								
Suitable for outside use.....	do.....				do.....			
Suitable for inside use.....	do.....				do.....			
Sash, heavy, wrought, bronzed.....	do.....				40 dozen.....	.50	153	Do.
Lock sets, 3½-inch, mortise, jet knobs, bronzed—steel combined rose and escutcheon, brass bolts and face, with key.....	do.....				No award.....			
Mallets, carpenter's, hickory, round, 6 by 4 inches.....	8.....	.29	14	San Francisco.....	50 1.....	.14	153	Do.
Measure, tape, 75-foot, linen tape and leather handles.....	5.....	.95	14	do.....	50 1.....	.45	153	Do.
Measure, tape, 75-foot, linen tape and leather handles.....	54 thousand.....	.95	211	do.....	64.....	.98	23	St. Louis.
Nails, cut, upholstery's, size 43, per M.....	1,475 pounds.....	4.65	14	do.....	2,710 pounds 1.....	4.00	134	Woodlawn, Pa.
Nails, wire, steel, per 100 pounds.....	625 pounds.....	4.60	14	do.....	3,470 pounds 1.....	3.95	134	Do.
34.....	1,625 pounds.....	4.45	14	do.....	1,410 pounds 1.....	3.80	134	Do.
44.....								

1 Only.

HARDWARE—Continued.

Articles.	Bids opened in San Francisco Apr. 2, 1917.				Bids opened in St. Louis May 25, 1917.			
	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
Nails, wire, steel, per 100 pounds—Continued.								
6d.	3,455 pounds	\$4.35	14	San Francisco	5,710 pounds ¹	\$3.70	134	Woodlawn, Pa.
8d.	7,725 pounds	4.25	14	do.	18,085 pounds ¹	3.60	134	Do.
10d.	6,225 pounds	4.20	14	do.	13,585 pounds ¹	3.55	134	Do.
12d.	1,040 pounds	4.20	14	do.	2,870 pounds ¹	3.55	134	Do.
20d.	8,085 pounds	4.15	14	do.	12,955 pounds ¹	3.50	134	Do.
30d.	2,450 pounds	4.15	14	do.	5,565 pounds ¹	3.50	134	Do.
40d.	2,620 pounds	4.15	14	do.	4,845 pounds ¹	3.50	134	Do.
60d.	3,850 pounds	4.15	14	do.	4,545 pounds ¹	3.50	134	Do.
Nails, wire, fence, per 100 pounds:								
8d.	100 pounds	4.25	14	do.	205 pounds ¹	3.60	134	Do.
10d.	350 pounds	4.20	14	do.	285 pounds ¹	3.55	134	Do.
12d.	300 pounds	4.20	14	do.	200 pounds ¹	3.55	134	Do.
Nails, wire, finishing, steel, per 100 pounds:								
6d.	1,715 pounds	4.60	14	do.	180 pounds ¹	3.95	134	Do.
8d.	1,470 pounds	4.50	14	do.	2,095 pounds ¹	3.85	134	Do.
10d.	915 pounds	4.40	14	do.	2,250 pounds ¹	3.75	134	Do.
Nails, horseshoe, per 100 pounds:								
No. 6.	770 pounds ¹	11.00	200	St. Louis.	1,690 pounds ¹	13.00	181	St. Louis.
No. 7.	425 pounds ¹	11.00	200	do.	1,405 pounds ¹	13.00	181	Do.
No. 8.	135 pounds ¹	11.00	200	do.	175 pounds ¹	13.00	181	Do.
Nails, oxshoe, No. 5.	None wanted.				No award.			
Nippers, shoeing.	17.	.75	14	San Francisco.	(See Appendix.)			
Nuts, iron, square, blank, hot-punched:								
For 1-inch bolt	23 pounds	12	200	St. Louis.	175 pounds ¹	.1075	181	Do.
For 1 1/2-inch bolt	23 pounds	11	200	do.	245 pounds ¹	.0925	181	Do.
For 2-inch bolt	29 pounds	.095	14	do.	547 pounds ¹	.0775	181	Do.
For 3-inch bolt	137 pounds	.079	14	San Francisco.	684 pounds ¹	.0645	181	Do.
For 4-inch bolt	101 pounds	.075	14	do.	601 pounds ¹	.0625	181	Do.
For 5-inch bolt	43 pounds	.073	14	do.	455 pounds ¹	.0615	181	Do.
Offers, copper-plated steel, No. 14, 5-inch spout.	140 (no award)				433	.09	153	Chicago.
Oilstones.	36.	.30	14	San Francisco.	76	.13	153	Do.
Packing, asbestos wick:								
1-inch.	No award				No award.			
1 1/2-inch.	do.				do.			(See Appendix.)
2-inch.	do.				do.			Do.
3-inch.	do.				do.			Do.
4-inch.	do.				do.			Do.
5-inch.	do.				do.			Do.

	do.	(See Appendix.)	San Francisco.	do.	Do.
Packing, asbestos sheet: 1/4-inch, in rolls.	133 pounds.	81	87	647	54 Akron, Ohio.
Packing, canvas duck, square spiral, piston, for pumps and other cold-water machinery:	26 pounds.	.81	87	72	Do.
1/4-inch.	12 pounds.	.26	237	20 pounds.	89 St. Louis.
1/2-inch.	5 pounds.	.26	237	30 pounds.	Do.
1/2-inch.	22 pounds.	.26	237	25 pounds.	Do.
1/2-inch.	5 pounds.	.26	237	None.	Do.
1/2-inch.	1 pound.	.26	237	None.	Do.
1/2-inch.	None.	.26	237	None.	Do.
1/2-inch.	28 pounds.	.26	237	30 pounds.	Do.
1/2-inch.	None.	.26	237	None.	Do.
1/2-inch.	do.	.26	237	None.	Do.
1/2-inch.	15 pounds.	.26	237	5 pounds.	Do.
Packing, square spiral, steam piston:					
1/2-inch.	22 pounds ¹ .	.50	198	80 pounds.	94 Akron, Ohio.
1/2-inch.	18 pounds.	.50	198	25 pounds.	Do.
1/2-inch.	29 pounds.	.50	198	96 pounds.	Do.
1/2-inch.	6 pounds.	.50	198	15 pounds.	Do.
1/2-inch.	35 pounds.	.50	198	101 pounds.	Do.
1/2-inch.	None.	.50	198	None.	Do.
1/2-inch.	33 pounds.	.50	198	20 pounds.	Do.
1/2-inch.	5 pounds.	.50	198	None.	Do.
1/2-inch.	2 pounds.	.50	198	25 pounds.	Do.
1/2-inch.	None.	.50	198	None.	Do.
1/2-inch.	1 pound.	.50	198	None.	Do.
1/2-inch.	None.	.50	198	1 pound.	Do.
1/2-inch.	3 pounds.	.50	198	None.	Do.
Packing, round spiral, steam piston:					
1/2-inch.	9 pounds.	.55	237	16 pounds.	164 St. Louis.
1/2-inch.	9 pounds.	.55	237	12 pounds.	Do.
1/2-inch.	23 pounds.	.55	237	31 pounds.	164 Do.
1/2-inch.	7 pounds.	.55	237	2 pounds.	164 Do.
1/2-inch.	23 pounds.	.55	237	46 pounds.	515 Akron, Ohio.
1/2-inch.	None.	.55	237	None.	Do.
1/2-inch.	do.	.55	237	None.	Do.
1/2-inch.	do.	.55	237	30 pounds.	515 Do.
1/2-inch.	6 pounds.	.55	237	20 pounds.	515 Do.
1/2-inch.	None.	.55	237	None.	Do.
1/2-inch.	do.	.55	237	do.	Do.
1/2-inch.	2 pounds.	.55	237	7 pounds.	47 Do.
1/2-inch.	do.	.55	237	None.	47 Do.
Packing, sheet gasket, rubber, for steam joints for pressure below 150 pounds per square inch:					
1/2-inch.	64 pounds.	.45	87	40 pounds.	94 Do.
1/2-inch.	135 pounds.	.45	87	432 pounds.	94 Do.
1/2-inch.	62 pounds.	.45	87	286 pounds.	94 Do.
1/2-inch.	55 pounds.	.45	87	97 pounds.	94 Do.

¹ Only.

[illegible]

No. 00, \$0.21 per quire. No. 0, \$0.21 per quire. No. 1, \$0.21 per quire. No. 11, \$0.2775 per quire. No. 2, \$0.2835 per quire. No. 3, \$0.215 per quire.
 * Only. * Nos. 1 to 6. * Nos. 7 to 9. * Nos. 10 to 12.

HARDWARE—Continued.

Articles.	Bids opened in San Francisco Apr. 2, 1917.				Bids opened in St. Louis May 25, 1917.			
	Quantity awarded.	Unit price.	No. of tractor.	Point of delivery.	Quantity awarded.	Unit price.	No. of tractor.	Point of delivery.
Rivets, iron, oval head—Continued.								
1 inch diameter, 24 inches long.	No award.				No award.			
1 inch diameter, 3 inches long.	do.				do.			
1 inch diameter, 34 inches long.	do.				do.			
1 inch diameter, 4 inches long.	do.				do.			
Rivets, tinued-iron, in packages of 1,000:								
10-ounce.	4,000.	\$0.30	14	San Francisco.	18,000 ¹ .	\$0.21	291	St. Louis.
12-ounce.	2,000.	.34	14	do.	11,000 ¹ .	.22	291	Do.
1-pound.	1,000.	.40	14	do.	8,000 ¹ .	.26	291	Do.
14-pound.	1,000.	.50	14	do.	8,000 ¹ .	.34	291	Do.
2-pound.	1,000.	.60	14	do.	8,000 ¹ .	.41	291	Do.
Rules, boxwood, 2-foot, 4-fold, full brass-bound.	162.	.38	14	do.	No award.			
Sadlrons, 5 to 8 pounds each, polished face, wrought handles, per pound.	94 pairs.	.06	14	do.	120 ¹ .	.085	153	Chicago.
Saw sets, lever:								
For crosscut saws.	3.	.75	308	do.	11 ¹ .	.80	153	Do.
For handsaws.	9.	.35	14	do.	30 ¹ .	.30	153	Do.
Saws:								
Back, 12-inch.	No award.				28.	1.15	115	St. Louis.
Buck, complete, 30-inch blade.	8.	.60	14	San Francisco.	20.	.63	115	Do.
Circular, as follows—								
20-inch, crosscut.	No award.				11.	12.67	115	Do.
20-inch, rip.	None wanted.				1.	12.67	115	Do.
30-inch, crosscut.	No award.				8.	16.63	115	Do.
30-inch, rip.	None wanted.				None.	16.63	115	Do.
37.	37.	.12	14	San Francisco.	90.	.27	115	Do.
Compass, 12-inch.								
Crosscut, with handles—								
6-foot.	6.	2.10	14	do.	7.	1.98	115	Do.
6-foot.	6.	2.50	14	do.	37.	2.52	115	Do.
Hand hollow back, 26-inch, 6 to 10 points to the inch.	63.	1.10	237	do.	164 ¹ .	1.28	115	Do.
Men's butcher's bow 20-inch.								
Rip, 28-inch, 4 and 5 points.	3.	.90	14	do.	30 ¹ .	.65	115	Do.
Scales.	27.	1.08	14	do.	64 ¹ .	1.50	115	Do.
Butcher's dial face spring balance, square pan 30 pounds by ounces.	No award.				30 ¹ .	3.10	115	Do.
Hay and cattle, 6-ton, standard platform.	No award. (See Appendix.)				No award. (See Appendix.)			
Hay and cattle, 10-ton, standard platform.	do.				do.			

Platform—	3.	9.50	14	San Francisco.	do.	Chicago.
Counter, 240 pounds.	No award.				do.	
Drop lever, on wheels—	None wanted				No award.	
1,000 pounds.	do.				Appendix. (See	
1,500 pounds.					54 down.	
2,000 pounds.						4. 48
10 dozen (no award)						153
Sissors, lady's, 6-inch, c. 8.	48	33	237	San Francisco.	140.	153
Screw drivers, blade running through handle:	34	51	227	do.	67	153
6-inch blade.	17	51	227	do.	72	153
10-inch blade.	21	80	14	do.	35	153
Screws, wrought iron, bench, 1½-inch.	No award.				11	153
Screws, wood, bench, 2-inch.						
Screws, flat-head, bright:						
1-inch, No. 3.	12 gross.	16	14	San Francisco.	31 gross.	76
1-inch, No. 4.	21 gross.	17	14	do.	36 gross.	78
1-inch, No. 5.	14 gross.	18	14	do.	50 gross.	78
1-inch, No. 6.	13 gross.	16	211	do.	1425	1425
1-inch, No. 7.	13 gross.	16	211	do.	139	78
1-inch, No. 8.	23 gross.	17	211	do.	56 gross.	78
1-inch, No. 9.	23 gross.	18	211	do.	78 gross.	78
1-inch, No. 10.	45 gross.	19	211	do.	15	15
1-inch, No. 11.	33 gross.	20	211	do.	75 gross.	15
1-inch, No. 12.	48 gross.	21	211	do.	107 gross.	155
1-inch, No. 13.	39 gross.	22	211	do.	61 gross.	166
1-inch, No. 14.	25 gross.	21	14	do.	95 gross.	174
1-inch, No. 15.	40 gross.	22	211	do.	65 gross.	173
1-inch, No. 16.	45 gross.	23	211	do.	105 gross.	1825
1-inch, No. 17.	34 gross.	23	14	do.	116 gross.	18
1-inch, No. 18.	22 gross.	24	14	do.	101 gross.	192
1-inch, No. 19.	47 gross.	26	14	do.	144 gross.	20
1-inch, No. 20.	31 gross.	29	211	do.	122 gross.	22
1-inch, No. 21.	18 gross.	31	14	do.	189 gross.	22
1-inch, No. 22.	32 gross.	31	14	do.	177 gross.	2375
1-inch, No. 23.	18 gross.	33	14	do.	106 gross.	2575
1-inch, No. 24.	4 gross.	37	14	do.	137 gross.	2575
1-inch, No. 25.	2 gross.	37	211	do.	63 gross.	274
1-inch, No. 26.	1 gross.	38	211	do.	74 gross.	30
1-inch, No. 27.	2 gross.	45	14	do.	73 gross.	31
1-inch, No. 28.	2 gross.	38	14	do.	15 gross.	365
1-inch, No. 29.	3 gross.	38	211	do.	94 gross.	32
1-inch, No. 30.	7 gross.	45	14	do.	22 gross.	3375
1-inch, No. 31.	None.	49	14	do.	365	365
1-inch, No. 32.	8 gross.	55	14	do.	7 gross.	40
1-inch, No. 33.	3 gross.	56	14	do.	40 gross.	4475
1-inch, No. 34.	1 gross.	60	14	do.	20 gross.	484
1-inch, No. 35.	do.	74	14	do.	5 gross.	565
1-inch, No. 36.	do.		14	do.	34 gross.	78
1-inch, No. 37.	do.		14	do.	16 gross.	78
1-inch, No. 38.	do.		14	do.		78

1 Only.

HARDWARE—Continued.

Articles.	Bids opened in San Francisco Apr. 2, 1917.				Bids opened in St. Louis May 26, 1917.			
	Quantity awarded.	Unit price.	No. of tractor.	Point of delivery.	Quantity awarded.	Unit price.	No. of tractor.	Point of delivery.
Screens, flat-head, bright—Continued.								
3-inch, No. 16.....	3 gross.....	\$0.94	14	San Francisco.....	14 gross.....	\$0.765	78	Chicago.
3-inch, No. 18.....	2 gross.....	1.23	14	do.....	8 gross.....	1.00	78	Do.
Shears, straight, trimmer's, c. s.:.....								
8-inch.....	6 dozen.....	5.50	14	do.....	17 dozen.....	5.45	133	Do.
10-inch.....	4 dozen.....	8.50	14	do.....	10 dozen.....	6.62	133	Do.
Shears, tinmer's, hand:								
No. 7.....	9.....	1.50	211	do.....	34.....	1.55	133	Do.
No. 9.....	11.....	1.00	14	do.....	15.....	1.25	133	Do.
Solder (50 parts pure tin and 50 parts pure lead).....	439 pounds.....	.3475	117	do.....	1,483 pounds.....	.355	197	San Francisco.
Soldering irons, per pound:								
14 pounds each.....	8 pairs.....	.55	14	do.....	21 pairs.....	.52	133	Chicago.
2 pounds each.....	2 pairs.....	.55	14	do.....	17 pairs.....	.52	133	Do.
Shoes, horse, light, assorted, fore and hind, per 100 pounds:								
No. 0.....	1,050 pounds.....	5.00	246	do.....	550 pounds.....	5.50	275	Erie, Pa.
No. 1.....	1,400 pounds.....	5.00	246	do.....	2,150 pounds.....	5.50	275	Do.
No. 2.....	2,288 pounds.....	4.75	246	do.....	6,360 pounds.....	5.25	275	Do.
No. 3.....	1,475 pounds.....	4.75	246	do.....	6,650 pounds.....	5.25	275	Do.
No. 4.....	1,550 pounds.....	4.75	246	do.....	6,575 pounds.....	5.25	275	Do.
No. 5.....	1,750 pounds.....	4.75	246	do.....	4,550 pounds.....	5.25	275	Do.
No. 6.....	1,500 pounds.....	4.75	246	do.....	2,225 pounds.....	5.25	275	Do.
Shoes, mule, per 100 pounds:								
No. 0.....	500 pounds.....	5.00	280	St. Louis.....	700 pounds.....	5.25	275	Do.
No. 1.....	do.....	5.00	280	do.....	775 pounds.....	5.25	275	Do.
No. 2.....	do.....	5.00	280	do.....	850 pounds.....	5.25	275	Do.
No. 3.....	No award. (See Appendix.)				No award. (See Appendix.)			
Shovels, fire, hand, long handle, heavy.....								
No. 1.....	70 dozen.....	1.50	228	San Francisco.....	224 dozen.....	1.52	133	Chicago.
No. 2.....	232 dozen.....	.75	228	do.....	401 dozen.....	.815	133	Do.
No. 3.....	No award.				No award.			
Spoons, plain, nickel silver:								
Table.....	7.....	.25	14	San Francisco.....	do.....			
Tea.....	14.....	.25	14	do.....	15.....	.25	133	Do.
Springs, door, spiral, heavy, 10-inch.....	56.....	.43	14	do.....	12.....	.43	133	Do.
Squares:								
Try, 6-inch.....	11.....	.45	237	do.....	21.....	.45	133	Do.
Try, 10-inch.....	do.....	.10	14	do.....	50 dozen.....	.0635	133	Do.
Try, and miter, 7-inch.....								
Staples, wrought iron, 3 inches long.....								

Steel, east: by 3 inches by 4 inches by 1 inch.	None wanted. do. do.	11 10 10 10 10 10	14 14 14 14 14 14	San Francisco.	50 pounds. None. 160 pounds	.155 Do. .145	St. Louis. Do. Do.
Steel, east, octagon: 1-inch. 1-inch. 1-inch. 1-inch. 1-inch. 1-inch.	160 pounds. 300 pounds. 375 pounds. 375 pounds. 440 pounds. 300 pounds.	11 10 10 10 10 10	14 14 14 14 14 14	San Francisco.	275 pounds. 360 pounds. 360 pounds. 360 pounds. 360 pounds. 360 pounds.	.120 .124 .119 .119 .119 .119	Do. Do. Do. Do. Do. Do.
Steel, east, square: 1-inch. 1-inch. 1-inch. 1-inch. 1-inch. 1-inch. 1-inch. 2-inch.	100 pounds. do. 115 125 pounds. None wanted. do. 160 pounds. 150 pounds.	12 do. 115 11 do. do. 11 115	200 200 200 200 200 200 200 14	St. Louis. do. do. do. do. St. Louis. San Francisco.	185 pounds. 300 pounds. 300 pounds. 160 pounds. 175 pounds. 425 pounds. 380 pounds. 200 pounds.	.120 .124 .124 .119 .119 .119 .119 .119	Do. Do. Do. Do. Do. Do. Do. Do.
Steel, plow: by 3 inches by 4 inches by 5 inches by 6 inches	75 pounds. 50 pounds. 75 pounds. None wanted.	.0625 do. do. do.	200 200 200 200	St. Louis. do. do. do.	450 pounds. None. 50 pounds. 300 pounds.	.06 do. do. do.	Do. Do. Do. Do.
(Steel, spring: by 1 inch. by 1 1/2 inches by 1 1/2 inches by 1 1/2 inches by 1 1/2 inches by 2 inches.	do. 50 pounds. 225 pounds. None wanted. None wanted. 150 pounds.	do. .06 do. do. do. do.	200 200 200 200 200 200	St. Louis. do. do. St. Louis. St. Louis.	100 pounds. 115 pounds. 415 pounds. 40 pounds. 440 pounds. 14 45.	.06 do. do. do. do. do.	Do. Do. Do. Do. Do. Chicago.
Steels, butcher's, 12-inch, stag handle, with swivle.	No award	13.00	14	San Francisco.	16 sets.	12.00	Do.
Stocks and dies, blacksmith's, to cut 1/4, 1/2, 3/4, 1, 1 1/2, 2, 3, 4, 5, and 1 inch, complete, with taps, in case.	1 set.						
Tacks, upholsterer's, full weight: 2-ounce, in 1-pound net packages. 3-ounce, in 1-pound net packages. 4-ounce, in 1-pound net packages. 5-ounce, in 1-pound net packages. 6-ounce, in 1-pound net packages. 8-ounce, in 1-pound net packages. 10-ounce, in 1-pound net packages. 12-ounce, in 1-pound net packages.	15 pounds. 6 pounds. 4 pounds. 3 pounds. 3 pounds. 3 pounds. 2 pounds. 2 pounds.	265 205 119 128 128 17 165 16	126 126 126 126 126 126 126 126	do. do. do. do. do. do. do. do.	49 pounds. 38 pounds. 30 pounds. 74 pounds. 66 pounds. 66 pounds. 33 pounds. 38 pounds.	.204 153 17 148 14 128 134 13	Do. Do. Do. Do. Do. Do. Do. Do.
Thermometers: Barometrical. Spirit. Trimmers, spoke, adjustable. Trowels. Brick, 10-inch. Plastering, 10-inch.	No award. do. do. do. do. 23.			(See Appendix.) San Francisco.	(37. No award. 37. 49.	.12 do. do. do.	Chicago. (See Appendix.) Chicago. Do.
* See Appendix.							

HARDWARE—Continued.

Articles.	Bids opened in San Francisco Apr. 2, 1917.				Bids opened in St. Louis May 25, 1917.			
	Quantity awarded.	Unit price.	No. of con-tractor.	Point of delivery.	Quantity awarded.	Unit price.	No. of con-tractor.	Point of delivery.
Tuyères (twee), iron, adjustable pattern, single heavy, with cleaning drop.	No award.				No award.			
Vises:								
Blacksmith's, solid box—								
6-inch jaw.	do.				81	\$14.50	153	Chicago.
4-inch jaw.	do.				71	5.10	153	Do.
Square slot, 4-inch jaw.	10.	\$4.25	227	San Francisco.	91	5.95	270	St. Louis.
Washers, iron, flat:								
For 1-inch bolt.	83 pounds.	.082	220	St. Louis.	321 pounds.	.087	153	Chicago.
For 1-inch bolt.	52 pounds.	.074	220	do.	331 pounds.	.086	153	Do.
For 1-inch bolt.	183 pounds.	.065	220	do.	331 pounds.	.086	153	Do.
For 1-inch bolt.	222 pounds.	.064	220	do.	723 pounds.	.082	153	Do.
For 1-inch bolt.	271 pounds.	.062	220	do.	473 pounds.	.082	153	Do.
For 1-inch bolt.	130 pounds.	.05	220	do.	473 pounds.	.086	153	Do.
Waste, cotton, white.	No award.				No award.			
Wedge, cold chopper's, solid steel:								
6-pound.	12	.064	14	San Francisco.	do.			
6-pound.	21	.064	14	do.	do.			
Wire, annealed, blued:								
No. 16.	No award.				do.			
No. 20.	do.				do.			
No. 24.	do.				do.			
Wire, bright, iron:								
No. 3.	do.				do.			
No. 6.	do.				100 pounds ¹	.045	153	Do.
No. 7.	do.				100 pounds ¹	.045	153	Do.
No. 8.	do.				63 pounds ¹	.045	153	Do.
No. 9.	do.				80 pounds ¹	.045	153	Do.
No. 10.	do.				195 pounds ¹	.05	153	Do.
No. 11.	do.				55 pounds ¹	.05	153	Do.
No. 12.	do.				100 pounds ¹	.052	153	Do.
No. 14.	do.				82 pounds ¹	.056	153	Do.
No. 16.	do.				35 pounds ¹	.063	153	Do.
No. 18.	do.				188 pounds ¹	.072	153	Do.
Wire, fence, barbed:								
Galvanized per 100 pounds—								
For hog fence.	None wanted.				9,900 pounds ¹	4.35	134	Woodlawn, Pa.
For cattle fence.	do.				76,900 pounds ¹	3.65	134	Do.
Black, per 100 pounds—								
For hog fence.	do.				400 pounds ¹	4.35	134	Do.
For cattle fence.	do.				5,450 pounds ¹	3.65	134	Do.

Wire-fence staples, 1-inch and 1½-inch, steel, 1 pound to 50 pounds of wire, per 100 pounds: Galvanized.....	do. 17.....	.08	14	San Francisco	4,740 pounds! 8,568 pounds! 43.....	4.35 3.63 1.75	134 134 133	Do. Do. Chicago.
Wire stretchers, for barbed wire.....	No award				157.....	.65	106	St. Louis.
Wrenches, screw, black, solid handle: 8-inch.....	do.				105 ¹.....	.76	133	Chicago.
10-inch.....	do.				106.....	.90	106	St. Louis.
12-inch.....	do.				85.....	1.25	133	Chicago.
15-inch.....	do.							
PLUMBERS' AND STEAM AND GAS FITTERS' TOOLS, FITTINGS, AND SUPPLIES.								
Cement, gas fitters', in 5-pound packages.....	20 pounds.....	\$0.15	117	San Francisco	No award			
Cutters, pipe, 3-wheel: To cut ½ to 1 inch.....	2.....	1.35	14	do.	14 ¹	\$1.40	153	Chicago.
To cut 1 to 2 inches.....	10.....	1.80	14	do.	28 ¹	1.80	59	Do.
Furnaces, blast, gasoline, combination, hot blast, complete with melting pot.	5.....	6.25	14	do.	No award			
Ladies, wrought, double lip: 4-inch.....	4.....	.14	14	do.	do.			(See Appendix.)
6-inch.....	2.....	.23	14	do.	do.			Do.
Pliers, gas, forged: 12-inch.....	13.....	.40	14	do.	53 ¹.....	.25	153	Chicago.
6-inch.....	11.....	.50	14	do.	29 ¹.....	.50	153	Do.
Ratchets, sleeve: Handle 10 inches long.....	2.....	5.00	14	do.	No award			(See Appendix.)
Handle 16 inches long.....	None wanted.				do.			Do.
Reamers, pipe: 1-inch.....	7.....	.55	14	San Francisco	19.....	.49	59	Chicago.
1½-inch.....	6.....	.74	14	do.	17.....	.65	59	Do.
1-inch.....	3.....	.92	14	do.	1.....	.81	59	Do.
1½-inch.....	4.....	1.10	14	do.	8.....	1.17	59	Do.
1-inch.....	1.....	1.35	14	do.	8.....	1.19	59	Do.
2-inch.....	2.....	1.85	14	do.	do.	1.60	59	Do.
Stocks and dies, pipe, adjustable: 1 to 2 inches.....	3 sets.....	4.85	66	do.	12.....	4.89	66	Do.
2 to 3 inches.....	7 sets.....	7.10	66	do.	do.	7.29	66	Do.
Taps, pipe: 1-inch.....	8.....	.55	14	do.	21.....	.49	66	Do.
1½-inch.....	5.....	.74	14	do.	16.....	.65	66	Do.
1-inch.....	5.....	.92	14	do.	12.....	.81	66	Do.
1½-inch.....	1.....	1.10	14	do.	10.....	.97	66	Do.
1-inch.....	1.....	1.35	14	do.	9.....	1.19	66	Do.
2-inch.....	2.....	1.85	14	do.	10.....	1.60	66	Do.
Vises, pipe, malleable iron, hinged, to hold ½ to 2 inch pipe.	7.....	1.50	14	do.	15 ¹	1.15	153	Do.
Wrenches, pipe: 10-inch.....	23.....	.76	66	do.	83.....	.77	153	Do.
15-inch.....	30.....	1.34	66	do.	97.....	1.55	153	Do.

¹ Only.

PIPE FITTINGS.

Articles.	Bids opened in San Francisco Apr. 2, 1917.				Bids opened in St. Louis May 25, 1917.			
	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
Elbows, lever handle, plain, finished, pipe thread:	12	\$0.72	66	San Francisco.	No award.			
	1-inch.	.74	66	do.	do.			
	1-inch.	.755	66	do.	do.			
	1-inch.	1.02	66	do.	do.			
Elbows, lever handle, plain, finished, for lead pipe:	12	1.36	66	do.	do.			
	1-inch.			do.	do.			
	1-inch.			do.	do.			
	1-inch.			do.	do.			
Elbows, compression, plain, finished, pipe thread:	None wanted.			do.	do.			
	1-inch.	.465		do.	do.			
	2-inch.	.495	24	do.	do.			
	1-inch.	1.50	34	do.	do.			
Bushings, malleable iron:	48	.0161	24	do.	202	\$0.0157	139	Chicago or St. Louis.
	by 1-inch.	.0161	24	do.	283	.0157	139	Do.
	by 1-inch.	.0202	24	do.	774	.0196	139	Do.
	by 1-inch.	.0242	24	do.	853	.0255	139	Do.
Caps, malleable iron, black, per pound:	24	.0583	24	do.	719	.0771	139	Do.
	by 1-inches.	.0583	24	do.	568	.0633	139	Do.
	by 2-inches.	.0583	24	do.		.0649	139	Do.
	by 2-inches.	.0583	24	do.	78	.135	139	Do.
Caps, malleable iron, galvanized, per pound:	24	.1445	24	do.	117	.135	139	Do.
	1-inch.	.1445	24	do.	266	.135	139	Do.
	1-inch.	.1445	24	do.	254	.135	139	Do.
	1-inch.	.1445	24	do.	194	.0852	59	Chicago.
Caps, malleable iron, galvanized, per pound:	83	.0887	24	do.	110	.0852	59	Do.
	1-inch.	.0887	24	do.	103	.081	139	Chicago or St. Louis.
	1-inch.	.0887	24	do.	77	.081	139	Do.
	2-inch.	.0887	24	do.	50	.19	139	Do.
Caps, malleable iron, galvanized, per pound:	None.	.2023	24	do.	50	.19	139	Do.
	1-inch.	.2023	24	do.	183	.19	139	Do.
	1-inch.	.2023	24	do.	154	.19	139	Do.
	1-inch.	.2023	24	do.	126	.1349	59	Chicago.
Caps, malleable iron, galvanized, per pound:	80	.1373	24	do.	74	.129	139	Chicago or St. Louis.
	1-inch.	.1373	24	do.	74	.129	139	Do.
	1-inch.	.1373	24	do.	70	.129	139	Do.
	2-inch.	.1373	24	do.				

Couplings, boiler, with unions, malleable iron, straight:	by 1 inch.....	6.	1.633	34	do.	37.	1225	139	Do.
	by 1 1/2 inch.....	6.	2.04	34	do.	40.	1332	139	Do.
	by 2 inch.....	None.	204	34	do.	55.	1332	139	Do.
	by 3 inch.....	24.	.011	66	do.	60.	.0146	139	Do.
Couplings, wrought iron, black, plain:	1-inch.....	24.	.019	66	do.	108.	.0235	139	Do.
	1 1/2-inch.....	24.	.0313	34	do.	192.	.0274	139	Do.
	2-inch.....	205.	.0446	34	do.	198.	.0392	139	Do.
	3-inch.....	205.	.061	66	do.	174.	.051	139	Do.
	4-inch.....	150.	.084	66	do.	77.	.0666	139	Do.
	5-inch.....	75.	.091	66	do.	54.	.0523	139	Do.
	6-inch.....	60.	.12	34	do.	49.	.1097	139	Do.
	7-inch.....	None.	.015	66	do.	25.	.0235	139	Do.
	8-inch.....	do.	.027	66	do.	31.	.0314	139	Do.
	9-inch.....	179.	.0446	34	do.	364.	.0392	139	Do.
Couplings, wrought iron, galvanized, plain:	1-inch.....	217.	.058	34	do.	400.	.051	139	Do.
	1 1/2-inch.....	82.	.0797	34	do.	319.	.0705	139	Do.
	2-inch.....	42.	.10	66	do.	166.	.088	139	Do.
	3-inch.....	48.	.125	66	do.	113.	.124	139	Do.
	4-inch.....	10.	.1735	34	do.	117.	.1568	139	Do.
	5-inch.....	None.	.1445	34	do.				
	6-inch.....	do.	.1445	34	do.				
	7-inch.....	do.	.1445	34	do.				
	8-inch.....	12.	.0845	34	do.	40.	.123	139	Do.
	9-inch.....	12.	.0897	34	do.	34.	.123	139	Do.
Couplings, R. & L., malleable iron, black, plain, per pound:	1-inch.....	None.	.0897	34	do.	31.	.081	139	Do.
	1 1/2-inch.....	do.	.0897	34	do.	15.	.081	139	Do.
	2-inch.....	do.							
	3-inch.....	do.							
	4-inch.....	do.							
	5-inch.....	do.							
	6-inch.....	do.							
	7-inch.....	do.							
	8-inch.....	do.							
	9-inch.....	do.							
Couplings, R. & L., malleable iron, galvanized, plain, per pound:	1-inch.....	do.	.2023	34	do.		.19	139	Do.
	1 1/2-inch.....	do.	.2023	34	do.		.19	139	Do.
	2-inch.....	do.	.2023	34	do.	20.	.19	139	Do.
	3-inch.....	6.	.2023	34	do.	20.	.19	139	Do.
	4-inch.....	None.	.1373	34	do.	20.	.139	139	Do.
	5-inch.....	do.	.1373	34	do.	9.	.139	139	Do.
	6-inch.....	do.	.1373	34	do.	9.	.139	139	Do.
	7-inch.....	None.	.1373	34	do.	12.	.139	139	Do.
	8-inch.....	do.	.1445	34	do.		.135	139	Do.
	9-inch.....	do.	.1445	34	do.		.135	139	Do.
Crosses, malleable iron, black, beaded:	1-inch.....	10.	.1445	34	do.	25.	.135	139	Do.
	1 1/2-inch.....	None.	.1445	34	do.	35.	.135	139	Do.
	2-inch.....	84.	.1445	34	do.	25.	.135	139	Do.
	3-inch.....	None.	.0867	34	do.	18.	.061	139	Do.
	4-inch.....	do.	.0867	34	do.	12.	.061	139	Do.
	5-inch.....	do.	.0867	34	do.	6.	.061	139	Do.
	6-inch.....	do.							
	7-inch.....	do.							
	8-inch.....	do.							
	9-inch.....	do.							

PIPE FITTINGS—Continued.

Articles.	Bids opened in San Francisco Apr. 2, 1917.				Bids opened in St. Louis May 25, 1917.			
	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
Crosses, malleable iron, galvanized, beaded:	1-inch.....	None.....	34	San Francisco.....	15.....	\$0.19	139	Chicago or St. Louis.
	1-inch.....	do.....	34	do.....	15.....	.19	139	Do.
	1-inch.....	do.....	34	do.....	15.....	.19	139	Do.
	1-inch.....	do.....	34	do.....	15.....	.19	139	Do.
	1-inch.....	do.....	34	do.....	15.....	.19	139	Do.
	1-inch.....	do.....	34	do.....	15.....	.19	139	Do.
Crosses, malleable iron, galvanized, per pound:	1-inch.....	None.....	34	do.....	40.....	.139	139	Do.
	2-inch.....	2.....	34	do.....	28.....	.129	139	Do.
Elbows, malleable iron, black, per pound:	1-inch.....	1.1373	34	do.....	15.....	.129	139	Do.
	2-inch.....	1.1373	34	do.....	15.....	.129	139	Do.
Elbows, malleable iron, galvanized, per pound:	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
Elbows, malleable iron, galvanized, per pound:	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
Elbows, boiler, with unions, malleable iron, bent:	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
Elbows, R. & L., malleable iron, black, per pound:	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.
	1-inch.....	24.....	34	do.....	24.....	.135	139	Do.

Elbow, R. & L., malleable iron, galvanized, per pound:	do.	2023	34	do.	19	Do.
1-inch	do.	2023	34	do.	19	Do.
1-inch	do.	2023	34	do.	19	Do.
1-inch	3	2023	34	do.	22	Do.
1-inch	5	2023	34	do.	46	Do.
1-inch	8	2023	34	do.	20	Do.
1-inch	None.	1373	34	do.	15	Do.
1-inch	2	1373	34	do.	12	Do.
2-inch	None.	1373	34	do.	15	Do.
Elbow, malleable iron, black, side outlet, per pound:	do.	1445	34	do.	16	Do.
1-inch	do.	1445	34	do.	135	Do.
1-inch	12	1445	34	do.	16	Do.
1-inch	16	1445	34	do.	14	Do.
1-inch	12	1445	34	do.	36	Do.
1-inch	4	1445	34	do.	4	Do.
1-inch	None.	1445	34	do.	10	Do.
1-inch	do.	1445	34	do.	2	Do.
2-inch	do.	1445	34	do.	2	Do.
Elbow, malleable iron, galvanized, side outlet, per pound:	do.	2023	34	do.	None.	Do.
1-inch	do.	2023	34	do.	None.	Do.
1-inch	36	2023	34	do.	74	Do.
1-inch	36	2023	34	do.	139	Do.
1-inch	None.	2023	34	do.	81	Do.
1-inch	do.	2023	34	do.	29	Do.
1-inch	do.	2023	34	do.	24	Do.
2-inch	do.	2023	34	do.	24	Do.
Gas-service cocks, brass, female:	do.	43	213	Cincinnati, Ohio.	12	Do.
1-inch	12	43	213	do.	37	Do.
1-inch	10	43	213	do.	68	Do.
1-inch	10	86	213	do.	22	Do.
1-inch	None.	1-85	213	do.	13	Do.
Nipples, cross, wrought iron, black:	do.	0114	34	San Francisco.	43	Do.
by 1-inch	44	0114	34	do.	43	Do.
by 1-inch	280	0138	34	do.	404	Do.
by 1-inch	165	0165	34	do.	507	Do.
by 1-inch	173	022	34	do.	432	Do.
by 1-inch	98	0303	34	do.	204	Do.
1 1/2 x 1 inches	47	0358	34	do.	245	Do.
2 by 2 inches	58	0485	34	do.	180	Do.
Nipples, close, wrought iron, galvanized:	do.	0189	34	do.	62	Do.
by 1-inch	24	0189	34	do.	62	Do.
by 1-inch	113	0189	34	do.	520	Do.
by 1-inch	165	0258	34	do.	503	Do.
by 1-inch	104	0327	34	do.	471	Do.
Chicago or St. Louis.						

PIPE FITTINGS—Continued.

Articles.	Bids opened in San Francisco Apr. 2, 1917.				Bids opened in St. Louis May 25, 1917.			
	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
Nipples, etc.—Continued.								
1½ by 1½ inches.....	70.....	\$0.0026	34	San Francisco	366.....	\$0.0497	59	Chicago.
1½ by 1½ inches.....	86.....	.0025	34	do.....	260.....	.0613	139	Chicago or St. Louis.
2 by 2 inches.....	12.....	.0003	34	do.....	253.....	.0789	139	Do.
Nipples, short, wrought iron, black:								
1½ by 1½ inches.....	10.....	.0114	34	do.....	24.....	.0111	139	Do.
1½ by 1½ inches.....	10.....	.0114	34	do.....	24.....	.0111	139	Do.
1½ by 1½ inches.....	112.....	.0138	34	do.....	239.....	.0139	139	Do.
1½ by 2 inches.....	112.....	.0138	34	do.....	239.....	.0139	139	Do.
1½ by 2 inches.....	42.....	.0237	34	do.....	216.....	.0217	139	Do.
1½ by 2 inches.....	26.....	.0303	34	do.....	183.....	.0268	139	Do.
1½ by 2 inches.....	46.....	.0353	34	do.....	131.....	.0353	139	Do.
2 by 2 inches.....	26.....	.0406	34	do.....	108.....	.0487	139	Do.
Nipples, short, wrought iron, galvanized:								
1½ by 1½ inches.....	24.....	.0189	34	do.....	54.....	.0176	59	Chicago.
1½ by 1½ inches.....	24.....	.0189	34	do.....	54.....	.0176	59	Do.
1½ by 1½ inches.....	124.....	.0189	34	do.....	434.....	.0176	59	Do.
1½ by 2 inches.....	163.....	.0288	34	do.....	505.....	.0284	139	Chicago or St. Louis.
1½ by 2 inches.....	24.....	.0327	34	do.....	496.....	.0321	139	Do.
1½ by 2 inches.....	68.....	.0306	34	do.....	215.....	.0497	139	Chicago.
1½ by 2 inches.....	88.....	.0625	34	do.....	191.....	.0613	139	Chicago or St. Louis.
2 by 2 inches.....	68.....	.0603	34	do.....	160.....	.0789	139	Do.
Nipples, long, wrought iron, black:								
1½ by 3 inches.....	10.....	.0171	34	do.....	12.....	.0167	139	Do.
1½ by 3 inches.....	10.....	.0171	34	do.....	12.....	.0167	139	Do.
1½ by 3 inches.....	115.....	.02	34	do.....	185.....	.0196	139	Do.
1½ by 3 inches.....	96.....	.0247	34	do.....	224.....	.0244	139	Do.
1 by 3½ inches.....	30.....	.0358	34	do.....	187.....	.0353	139	Do.
1½ by 4 inches.....	30.....	.0468	34	do.....	130.....	.046	139	Do.
1½ by 4 inches.....	None	.055	34	do.....	135.....	.0541	139	Do.
2 by 4 inches.....	2 by 4 inches.....	.074	34	do.....	119.....	.0781	139	Do.
Nipples, long, wrought iron, galvanized:								
1½ by 3 inches.....	24.....	.0346	34	do.....	25.....	.0322	59	Chicago.
1½ by 3 inches.....	24.....	.0346	34	do.....	50.....	.0322	59	Do.
1½ by 3 inches.....	117.....	.0346	34	do.....	311.....	.0322	59	Do.
1 by 3½ inches.....	120.....	.0416	34	do.....	398.....	.0409	139	Chicago or St. Louis.
1 by 3½ inches.....	22.....	.0565	34	do.....	311.....	.0555	139	Do.
1½ by 4 inches.....	16.....	.0653	34	do.....	264.....	.0647	139	Do.
1½ by 4 inches.....	44.....	.104	34	do.....	209.....	.1022	139	Do.
2 by 4 inches.....	36.....	.1398	34	do.....	185.....	.1373	139	Do.

Pipe, steel, black, per foot:							
1-inch	160 feet	0.35	14	do	340 feet	0.873	59
1-inch	160 feet	0.35	14	do	570 feet	0.873	59
1-inch	1,510 feet	0.46	14	do	2,293 feet	0.935	59
1-inch	1,930 feet	0.58	14	do	3,183 feet	0.935	59
1-inch	1,490 feet	0.66	14	do	2,226 feet	0.938	59
1-inch	1,046 feet	1.16	14	do	1,904 feet	1.27	59
1-inch	856 feet	1.4	14	do	1,216 feet	1.518	59
2-inch	1,045 feet	1.87	14	do	1,268 feet	2.042	59
Pipe, steel, galvanized, per foot:							
1-inch	100 feet	0.55	14	do	300 feet	0.541	59
1-inch	100 feet	0.55	14	do	350 feet	0.541	59
1-inch	4,450 feet	0.62	14	do	8,905 feet	0.631	59
1-inch	9,100 feet	0.8	14	do	14,110 feet	0.807	59
1-inch	3,100 feet	1.17	14	do	7,164 feet	1.193	59
1-inch	1,650 feet	1.6	14	do	4,484 feet	1.615	59
1-inch	1,400 feet	1.9	14	do	2,188 feet	1.831	59
2-inch	1,400 feet	2.8	14	do	3,918 feet	2.597	59
Pipe, lead, per pound:							
1-inch	No award			do	10 feet 1	1.275	153
1-inch	do			do	40 feet 1	1.275	153
1-inch	do			do	75 feet 1	1.275	153
1-inch	do			do	83 feet 1	1.275	153
2-inch	do			do	None		
Plugs, cast-iron, black:							
1-inch	22	0.085	34	San Francisco	102	0.082	139
1-inch	22	0.085	34	do	114	0.082	139
1-inch	202	0.085	34	do	882	0.082	139
1-inch	226	0.128	34	do	863	0.128	139
1-inch	187	0.17	34	do	277	0.164	139
1-inch	101	0.213	34	do	205	0.205	139
1-inch	86	0.297	34	do	162	0.287	139
2-inch	25	0.425	34	do	128	0.41	139
Plugs, cast-iron, galvanized:							
1-inch	None	0.17	34	do	25	0.164	139
1-inch	do	0.17	34	do	25	0.164	139
1-inch	109	0.17	34	do	403	0.164	139
1-inch	132	0.256	34	do	437	0.246	139
1-inch	59	0.34	34	do	306	0.328	139
1-inch	12	0.425	34	do	194	0.41	139
1-inch	16	0.586	34	do	146	0.574	139
2-inch	6	0.85	34	do	122	0.819	139
Reducers, malleable iron, black, per pound:							
by 1 inch	4	1.445	34	do	57	1.35	139
by 1 inch	6	1.445	34	do	57	1.35	139
by 1 inch	74	1.445	34	do	152	1.35	139
by 1 inch	61	1.445	34	do	178	1.35	139
by 1 inch	61	0.897	34	do	73	0.81	139
by 1 inch	62	0.897	34	do	73	0.81	139
by 1 inch	None	0.897	34	do	41	0.81	139

Chicago or St. Louis.

PIPE FITTINGS—Continued.

Articles.	Bids opened in San Francisco Apr. 2, 1917.				Bids opened in St. Louis May 25, 1917.			
	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
Reducers, malleable iron, galvanized, per pound:								
1 by 1 inch.....	12.....	\$0.2023	34	San Francisco.....	51.....	\$0.19	139	Chicago or St. Louis.
1 by 1 inch.....	12.....	.2023	34	do.....	51.....	.19	139	Do.
1 by 1 inch.....	66.....	.2023	34	do.....	417.....	.19	139	Do.
1 by 1 inch.....	89.....	.2023	34	do.....	409.....	.19	139	Do.
1 by 1 inch.....	41.....	.1373	34	do.....	308.....	.129	139	Do.
1 by 1 inches.....	28.....	.1373	34	do.....	236.....	.129	139	Do.
1 by 2 inches.....	None.....	.1373	34	do.....	188.....	.129	139	Do.
Stopcocks, brass, steam:								
1 inch.....	8.....	.65	213	Cincinnati, Ohio.....	12.....	.25	139	Do.
1 inch.....	6.....	.89	213	do.....	No award. (See Appendix.)			
1 inch.....	48.....	.89	213	do.....	110.....	.35	139	Do.
1 inch.....	42.....	1.23	213	do.....	99.....	.48	139	Do.
1 inch.....	6.....	1.98	213	do.....	14.....	.75	139	Do.
1 inch.....	4.....	2.53	213	do.....	8.....	.99	139	Do.
2 inch.....	None.....	3.51	213	do.....	9.....	1.43	139	Do.
Straps, lined, for 1, 1, 1, 1, 1, and 2 inch pipe, per pound.....	32.....	.12	14	San Francisco.....	141 dozen.....	.065	59	Chicago.
Tees, malleable iron, black, per pound:								
1 inch.....	17.....	.1445	34	do.....	92.....	.135	139	Chicago or St. Louis.
1 inch.....	17.....	.1445	34	do.....	132.....	.135	139	Do.
1 inch.....	41.....	.1445	34	do.....	136.....	.135	139	Do.
1 inch.....	81.....	.0897	34	do.....	259.....	.081	139	Do.
1 inch.....	28.....	.0897	34	do.....	164.....	.081	139	Do.
1 inch.....	6.....	.0897	34	do.....	148.....	.081	139	Do.
1 inch.....	None.....	.0897	34	do.....	114.....	.081	139	Do.
2 inch.....	do.....	.0897	34	do.....				
Tees, malleable iron, galvanized, per pound:								
1 inch.....	12.....	.2023	34	do.....	33.....	.19	139	Do.
1 inch.....	12.....	.2023	34	do.....	34.....	.19	139	Do.
1 inch.....	174.....	.2023	34	do.....	471.....	.19	139	Do.
1 inch.....	171.....	.1373	34	do.....	583.....	.129	139	Do.
1 inch.....	46.....	.1373	34	do.....	872.....	.129	139	Do.
1 inch.....	54.....	.1373	34	do.....	290.....	.129	139	Do.
1 inch.....	36.....	.1373	34	do.....	193.....	.129	139	Do.
2 inch.....	13.....	.1373	34	do.....	154.....	.129	139	Do.

Tees, 4-way, malleable iron, black, per pound:									
1-inch	None wanted.					15		135	Do.
1-inch	do.					15		135	Do.
1-inch	do.					30		135	Do.
1-inch	do.					43		135	Do.
1-inch	do.					6		135	Do.
1-inch	do.					19		135	Do.
1-inch	do.					19		135	Do.
1-inch	do.					6		135	Do.
2-inch	do.					6		135	Do.
Tees, 4-way, malleable, iron, galvanized, per pound:									
1-inch	do.					10		139	Do.
1-inch	do.					19		139	Do.
1-inch	do.					55		139	Do.
1-inch	do.					45		139	Do.
1-inch	do.					25		139	Do.
1-inch	do.					17		139	Do.
1-inch	do.					None		139	Do.
1-inch	do.					None		139	Do.
2-inch	do.					None		139	Do.
Unions, malleable iron, black:									
1-inch	.0642	34	San Francisco.			73		.06	Do.
1-inch	.0714	34	do.			102		.065	Do.
1-inch	.0785	34	do.			205		.072	Do.
1-inch	.0864	34	do.			235		.09	Do.
1-inch	.1178	34	do.			213		.11	Do.
1-inch	.1642	34	do.			113		.15	Do.
1-inch	.207	34	do.			119		.19	Do.
1-inch	.2077	34	do.			73		.245	Do.
1-inch	.0864	34	do.			57		.09	Do.
1-inch	.107	34	do.			57		.10	Do.
1-inch	.1178	34	do.			561		.11	Do.
1-inch	.1428	34	do.			635		.13	Do.
1-inch	.1735	34	do.			499		.165	Do.
1-inch	.25	34	do.			299		.22	Do.
1-inch	.32	34	do.			190		.295	Do.
2-inch	.41	34	do.			164		.38	Do.
Unions, malleable iron, galvanized:									
1-inch	None.	34	do.			26		.725	Chicago.
1-inch	.82	34	do.			30		.725	Do.
1-inch	.93	34	do.			219		.825	Do.
1-inch	1.16	34	do.			239		1.025	Do.
1-inch	1.53	34	do.			160		1.40	Do.
1-inch	2.39	34	do.			97		2.85	Do.
1-inch	2.99	34	do.			78		2.60	Do.
1-inch	2.93	34	do.			80		2.85	Do.
2-inch	7.33	34	do.			9		8.97	Chicago or St. Louis.
3-inch	No award.	34	do.			7		7.17	Do.
Valves, gate, 125 pounds working steam pressure and 1/2 pounds working water pressure:									
1-inch	None.								
1-inch	18								
1-inch	18								
1-inch	110								
1-inch	143								
1-inch	59								
1-inch	24								
1-inch	15								
1-inch	16								
2-inch	8								
3-inch	No award.								

PIPE FITTINGS—Continued.

Articles.	Bids opened in San Francisco Apr. 2, 1917.				Bids opened in St. Louis May 25, 1917.			
	Quantity awarded.	Unit price.	No. of con-tractor.	Point of delivery.	Quantity awarded.	Unit price.	No. of con-tractor.	Point of delivery.
Valves, globe, 150 pounds working steam pressure and 250 pounds working water pressure:								
1-inch.....	20.....	\$0.555	34	San Francisco.....	62.....	\$0.70	139	Chicago or St. Louis.
1½-inch.....	17.....	1.795	34	do.....	68.....	.81	139	Do.
2-inch.....	100.....	1.075	34	do.....	281.....	1.04	139	Do.
2½-inch.....	177.....	1.355	34	do.....	453.....	1.375	69	Chicago.
3-inch.....	69.....	1.87	34	do.....	323.....	1.83	139	Chicago or St. Louis.
4-inch.....	20.....	2.63	34	do.....	140.....	2.65	139	Do.
5-inch.....	32.....	3.645	34	do.....	92.....	3.51	139	Do.
6-inch.....	8.....	5.80	34	do.....	73.....	5.63	139	Do.
7-inch.....	No award			do.....	None wanted.			
8-inch.....	do.			do.....	do.			
Valves, angle, 150 pounds working steam pressure and 250 pounds working water pressure:								
1-inch.....	9.....	.655	34	do.....	25.....	.70	139	Do.
1½-inch.....	23.....	.785	34	do.....	24.....	.81	139	Do.
2-inch.....	21.....	1.015	34	do.....	70.....	1.04	139	Do.
2½-inch.....	9.....	1.87	34	do.....	41.....	1.875	49	Chicago.
3-inch.....	6.....	2.69	34	do.....	51.....	2.65	139	Chicago or St. Louis.
4-inch.....	None.....	3.645	34	do.....	23.....	3.51	139	Do.
5-inch.....	1.....	5.80	34	do.....	12.....	5.63	139	Do.
6-inch.....	None wanted			do.....	2.....	7.94	213	Cincinnati, Ohio.
7-inch.....	do.				None wanted.			
Valves, cross, 150 pounds working steam pressure and 250 pounds working water pressure:								
1-inch.....	do.....				do.....			
1½-inch.....	do.....				do.....			
2-inch.....	do.....				do.....			
2½-inch.....	do.....				do.....			
3-inch.....	do.....				do.....			
4-inch.....	do.....				do.....			
5-inch.....	do.....				do.....			
6-inch.....	do.....				do.....			
7-inch.....	do.....				do.....			
8-inch.....	do.....				do.....			
Valves, radiator, 125 pounds working steam pressure:								
1-inch.....	do.....				do.....			
1½-inch.....	No award				do.....			

	None wanted.			None		1.50	139	Chicago or St. Louis.
1-inch.	do.			5		1.97	139	Do.
1-inch.	do.			5		2.24	139	Do.
1-inch.	10.	3.75	84	162	San Francisco.	3.15	139	Do.
1-inch.	6.	4.75	84	116	do.	3.08	139	Do.
2-inch.	None wanted.			74		6.44	139	Do.
HOSE GOODS.								
Couplings, hose, cast brass:								
1-inch.	71	\$0.145	95	San Francisco.		\$0.15	95	St. Louis.
1-inch.	2.	.19	95	do.	137 ¹	.19	95	Do.
1-inch.	None.	.42	95	do.	100 ¹	.44	153	Chicago.
1-inch.	do.	.59	95	do.	51	.63	153	Do.
2-inch.	do.	1.00	95	do.	181	1.21	153	Do.
2-inch.	5.	2.00	95	do.	None wanted.			
Hose clamps, brass:								
For 1-inch hose.	21 dozen ¹	.35	153	do.	53 dozen ¹	.30	153	Do.
For 1-inch hose.	None.	1.20	95	do.	4 dozen ¹	1.02	153	Do.
For 1-inch hose.	do.	1.50	95	do.	3 dozen ¹	1.26	153	Do.
For 1-inch hose.	2 dozen.	2.30	95	do.	3 dozen ¹	1.31	153	Do.
For 1-inch hose.	3 dozen.	2.40	95	do.	2 ¹ dozen ¹	2.42	153	Do.
For 2-inch hose.	1 dozen.	4.30	95	do.	8,900 feet ¹	3.54	153	Do.
Hose, rubber, garden, 1-inch, in lengths of 50 feet, coupled.	11,275 feet.	.085	14	do.		.0775	153	Do.
Hose, cotton, rubber-lined, in lengths of 50 feet, coupled:								
1-inch.	750 feet.	.13	153	do.	500 feet.	.175	94	Alton, Ohio.
1-inch.	None wanted.				105	.195	94	Do.
2-inch.	250 feet.	.24	94	San Francisco.	250 feet.	.215	94	Do.
2-inch double jacket.	1,400 feet.	.49	214	do.	2,250 feet.	.30	159	St. Louis.
Hose, unlined, linen, fire, in lengths of 50 feet, coupled:						.63	159	Do.
1-inch.	None wanted.				No award.			
1-inch.	do.				do.			
1-inch.	No award.				do.			
2-inch.	200 feet.	.365	297	San Francisco.	do.			
2-inch.	150 feet.	.45	297	do.	do.			
2-inch.	48.	.38	14	do.	do.			
Nozzles, hose, screw, combination, 1-inch.	2.	.60	95	do.	do.			
Nozzles, hose, screw:					None wanted.			
1-inch.	None.	1.20	95	do.	No award.			
1-inch.	12.	1.50	95	do.	do.			
2-inch.	3.	2.28	95	do.	do.			
2-inch.	3.	4.50	95	do.	do.			

(See Appendix.)

¹ Only.

MEDICAL SUPPLIES.

[Bids opened in St. Louis May 2, 1917.]

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
MEDICINES.				
Acids:				
Acetic, U. S. P., in bottles containing 4 ounces.	97 bottles.....	\$0.065	157	St. Louis.
Boric, powdered, U. S. P., in cartons containing 4 ounces.	4,017 cartons....	.0475	274	Kansas City, Mo.
Phenol, liqulfactum, U. S. P., in bottles containing 8 ounces.	673 bottles.....	.30	157	St. Louis.
Phenol, crystals, in 1-ounce vials.....	156 ounces.....	.08	157	Do.
Hydrochloric, U. S. P., in g. s. bottles containing 1 pound.	241 bottles.....	.24	157	Do.
Nitric, U. S. P., in g. s. bottles containing 8 ounces.	134 bottles.....	.19	157	Do.
Picric, in bottles containing 1 ounce.....	No award.....			
Salicylic, powdered, U. S. P., in bottles containing 8 ounces.	40 bottles.....	.52	157	St. Louis.
Sulphuric, U. S. P., in g. s. bottles containing 8 ounces.	115 bottles.....	.17	157	Do.
Sulphuric, commercial, for fire extinguishers, in 1-quart bottles.	533 bottles.....	.16	274	Kansas City, Mo.
Sulphuric, aromatic, U. S. P., in g. s. bottles containing 4 ounces.	No award.....			
Tannic, powdered, U. S. P., in cartons containing 4 ounces.	88 cartons.....	.315	157	St. Louis.
Fluid extracts, U. S. P.:				
Cascara sagrada, in bottles containing 16 ounces.	463 bottles.....	1.39	257	Cleveland.
Ergot, in bottles containing 4 ounces.....	354 bottles.....	1.33	257	Do.
Glycyrrhiza, in bottles containing 16 ounces.	351 bottles.....	1.58	257	Do.
Ipecac, in bottles containing 4 ounces.....	96 bottles.....	1.81	257	Do.
Senna, in bottles containing 4 ounces.....	68 bottles.....	2.17	115	St. Louis.
Hypodermic tablets:				
Adrenalin and novocaine, in bottles of 10 (adrenalin $\frac{1}{10}$ grain, novocaine 4 grains. One tablet dissolved in 5 cubic centimeters or 80 minims of water makes approximately a 5 per cent solution of novocaine in adrenalin 1 to 15,000).	No award.....			
Apomorphine, hydrochlorate, $\frac{1}{10}$ grain, in tubes of 25.	99 tubes.....	1.20	257	Cleveland.
Atropine, sulphate, $\frac{1}{10}$ grain, in tubes of 25.	157 tubes.....	1.075	257	Do.
Cocaine, hydrochlorate, $\frac{1}{10}$ grain, in tubes of 25.	206 tubes.....	1.11	257	Do.
Digitalin, $\frac{1}{10}$ grain, in tubes of 25.....	164 tubes ²	1.03	158	New York or Newark, N. J.
Emetine hydrochloride, $\frac{1}{10}$ grain, in tubes of 25.	123 tubes.....	1.50	292	Oconomowoc, Wis.
Hyoscyamine, $\frac{1}{10}$ grain, in tubes of 25...	57 tubes.....	1.105	257	Cleveland.
Morphia, $\frac{1}{10}$ grain, atropine, $\frac{1}{10}$ grain, in tubes of 25.	617 tubes.....	1.22	257	Do.
Morphia, sulphate, $\frac{1}{10}$ grain each, in tubes of 25.	632 tubes.....	1.11	257	Do.
Nitroglycerin, $\frac{1}{10}$ grain, in tubes of 25....	218 tubes ²	1.03	158	New York or Newark, N. J.
Pilocarpine, hydrochlorate, $\frac{1}{10}$ grain, in tubes of 25.	73 tubes.....	.19	304	Philadelphia.
Strychnine, sulphate, $\frac{1}{10}$ grain, in tubes of 25.	301 tubes ²	4.03	158	New York or Newark, N. J.
Tablet triturates:				
Aloin, $\frac{1}{10}$ grain, in bottles of 100.....	43 bottles.....	1.05	257	Cleveland.
Atropine, sulphate, $\frac{1}{10}$ grain, in bottles of 100.	136 bottles.....	1.165	257	Do.
Caffeine, citrated, $\frac{1}{10}$ grain, in bottles of 100.	225 bottles.....	1.075	97	Louisville, Ky.
Calomel and sodium, in bottles of 500—Calomel $\frac{1}{10}$ grain, sodium bicarbonate 1 grain.	516 bottles.....	.067	93	Glens Falls, N. Y.
Calomel $\frac{1}{10}$ grain, sodium bicarbonate 1 grain.	365 bottles.....	.068	93	Do.
Cascara sagrada, powdered extract, 1 grain, in bottles of 100.	156 bottles.....	1.055	257	Cleveland.

¹ Strong, Cobb & Co. brand.
² Allaire-Woodward.

³ Only.
⁴ Malibie Chemical Co. brand.

MEDICAL SUPPLIES—Continued.

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
MEDICINES.				
Tablet triturates—Continued.				
Codeine, without sugar, in bottles of 100— $\frac{1}{2}$ grain	377 bottles	\$0.50	97	Louisville, Ky.
$\frac{1}{4}$ grain	224 bottles .....	.95	97	Do.
$\frac{1}{8}$ grain	225 bottles ¹	1.95	158	New York or Newark, N. J.
Corrosive sublimate, $\frac{1}{16}$ grain, in bottles of 100.	85 bottles	1.0475	257	Cleveland.
Digitalin, pure, $\frac{1}{16}$ grain, in bottles of 100.	175 bottles ¹	1.06	158	New York or Newark, N. J.
Podophyllin, $\frac{1}{2}$ grain, in bottles of 100	122 bottles .....	.05	97	Louisville, Ky.
Santonine and calomel (santonine $\frac{1}{2}$ grain, calomel $\frac{1}{2}$ grain), in bottles of 100.	111 bottles	1.38	247	St. Louis.
Strychnine, sulphate, $\frac{1}{16}$ grain, in bottles of 500.	97 bottles .....	.07	93	New York, Chicago. Glens Falls, N. Y.
Tartar emetic, $\frac{1}{16}$ grain, in bottles of 100.	No award			
Terpin hydrate, 2 grains, heroin, $\frac{1}{16}$ grain, in bottles of 500.	393 bottles	1.635	257	Cleveland.
Compressed tablets:				
Acetanilid, 24 grains (100 in bottle)	1,068 bottles .....	.055	97	Louisville, Ky.
Acetphenetidin, 24 grains (100 in bottle) ..	242 bottles ¹	1.107	158	New York or Newark, N. J.
Acetyl salicylic acid (or aspirin), 3 grains, in bottles of 100.	1,832 bottles	1.23	257	Cleveland.
Antiseptic, nasal, in bottles of 500 (each tablet shall contain sodium bicarbonate 8 grains, sodium chloride 5 grains, sodium borate 5 grains, sodium benzoate $\frac{1}{2}$ grain, sodium salicylate $\frac{1}{2}$ grain, thymol $\frac{1}{16}$ grain, menthol $\frac{1}{16}$ grain, oil eucalyptus $\frac{1}{16}$ grain, oil wintergreen $\frac{1}{16}$ grain).	269 bottles .....	.44	93	Glens Falls, N. Y.
Bronchial (ammoniated chloride $\frac{1}{2}$ grain, extract glycyrrhiza 1 grain, oleoresin cubeb $\frac{1}{2}$ m., powdered hyoscyamus $\frac{1}{2}$ grain, powdered senega $\frac{1}{2}$ grain, powdered ipecac $\frac{1}{2}$ grain, balsam tolu $\frac{1}{2}$ grain), in bottles of 500.	705 bottles	1.33	257	Cleveland.
Charcoal, 5 grains, in cartons containing 1 pound.	70 cartons	1.19	257	Do.
Corrosive mercuric chloride, blue, for external use (formula: Corrosive mercuric chloride 0.5 gram, ammonium chloride 0.5 gram, with sufficient blue coloring matter to make 1 to 1,000 solution distinctly blue. Tablets to have a distinctive shape, in bottles of 25.	587 bottles	1.095	257	Do.
Same as above, in bottles of 500	165 bottles	1.34	247	New York, Chicago, or St. Louis.
Hexamethylenamine, 5 grains, in bottles of 500.	299 bottles	1.38	97	Louisville, Ky.
Heroin, hydrochloride, $\frac{1}{16}$ grain, in bottles of 100.	183 bottles	1.35	97	Do.
Phenolphthalein, in bottles of 500— 1 grain	Not to be purchased.			
3 grain	do			
Potassium chlorate, 5 grains, in cartons containing 1 pound.	66 cartons	1.100	257	Cleveland.
Potassium permanganate, $\frac{1}{2}$ -grain, in bottles of 100.	102 bottles	1.08	257	Do.
Quinine, sulphate, 3-grain, in bottles of 100.	1,053 bottles	1.64	257	Do.
Rennet, in bottles of 100	32 bottles	1.115	257	Do.
Phenyl salicylate, 5 grains, in bottles of 100.	649 bottles	1.17	97	Louisville, Ky.
Sodium chloride, for normal salt solution (164 grains pure sodium chloride, so that 1 tablet in 4 ounces of water will make a normal salt solution), in bottles of 100.	265 bottles	1.07	257	Cleveland.
Sodium salicylate, 5 grains, in bottles of 500.	411 bottles	1.45	97	Louisville, Ky.
Thyroid glands, desiccated, U. S. P., 2-grain, in bottles of 100.	211 bottles	1.23	247	New York, Chicago, or St. Louis.

¹ Only.² Maltbie Chemical Co. brand.³ Strong, Cobb & Co. brand.⁴ Squibb brand.⁵ Gould & Son brand.

MEDICAL SUPPLIES—Continued.

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
MEDICINES—continued.				
Compressed tablets—Continued.				
Sulphonethylmethanum, 5-grain, in bottles of 100.	66 bottles.....	\$0.78	304	Philadelphia.
Veronol, 5-grain, in bottles of 100.....	No award.....	.....	.....	.....
Elxirs, etc.:				
Aromatic elixir, U. S. P., in bottles containing 16 ounces.	1,281 bottles.....	1.26	257	Cleveland.
Iron, quinine, and strychnine, elixir of, N. F., in bottles containing 16 ounces.	1,435 bottles.....	.59	292	Oconomowoc, Wis.
Pepsin, elixir of, N. F., in bottles containing 16 ounces.	1,297 bottles.....	.37875	167	St. Louis.
Sodium bromide, elixir of, in bottles containing 16 ounces.	403 bottles.....	.30	93	Glens Falls, N. Y.
Terpine hydrate and heroin, elixir of, in bottles containing 16 ounces.	1,201 bottles.....	1.89	115	St. Louis.
Oils:				
Cade, U. S. P., in bottles containing 4 ounces.	46 bottles.....	.35	167	Do.
Camphorated oil (3 gr. camphor in pure olive oil) in boxes of 1 dozen 2-oz. ampoules.	No award.....	.....	.....	(See Appendix.)
Castor, U. S. P., in bottles containing 4 ounces.	6,878 bottles.....	.15	167	St. Louis.
Castor, U. S. P., in bottles containing 32 ounces.	1,821 bottles.....	.65	167	Do.
Cloves, U. S. P., in bottles containing 2 ounces.	576 bottles.....	1.40	167	Do.
Cod-liver, emulsion of, simple, U. S. P., in bottles containing 16 ounces.	No award.....	.....	.....	(See Appendix.)
Cod-liver, U. S. P., in bottles containing 16 ounces.	.....do.....	.....	.....	Do.
Cottonseed, U. S. P., in bottles containing 16 ounces.	1,627 bottles.....	.37	292	Oconomowoc, Wis.
Croton, U. S. P., in bottles containing 1 ounce.	No award.....	.....	.....	(See Appendix.)
Eucalyptus, U. S. P., in bottles containing 1 ounce.	250 bottles.....	.12	167	St. Louis.
Yellow mercurous iodide, $\frac{1}{2}$ grain each, in bottles of 100. ¹	688 bottles.....	1.11	247	New York, Chicago, or St. Louis.
Linseed, U. S. P., raw, in bottles containing 16 ounces.	808 bottles.....	.24	274	Kansas City, Mo.
Male fern, ethereal, in bottles containing 2 ounces.	No award.....	.....	.....	(See Appendix.)
Methyl salicylate, U. S. P., in bottles containing 1 ounce.....	268 bottles.....	.12	167	St. Louis.
	768 bottles.....	1.12	247	New York, Chicago, or St. Louis.
Peppermint, U. S. P., in bottles containing 4 ounces.	No award.....	.....	.....	(See Appendix.)
Sandalwood, U. S. P., in bottles containing 4 ounces.	36 bottles.....	3.00	167	St. Louis.
Turpentine, U. S. P., in bottles containing 32 ounces.	1,347 bottles.....	.24	274	Kansas City, Mo.
Pills, or sugar or chocolate-coated tablets:				
Aloin ($\frac{1}{2}$ gr.), belladonna ($\frac{1}{2}$ gr.), strychnine ($\frac{1}{10}$ gr.), in bottles of 500.	393 bottles.....	1.17	257	Cleveland.
Camphor and opium (camphor, 2 gr.; opium, 1 gr.), in bottles of 100. ²	155 bottles.....	1.42	158	New York or Newark.
Cathartic, vegetable, U. S. P., in bottles of 500.	481 bottles.....	.51	93	Glens Falls, N. Y.
Comp. cathartic, U. S. P., in bottles of 500...	478 bottles.....	1.16	304	Philadelphia.
Iron carbonate, U. S. P., in bottles of 100.	398 bottles.....	1.06	257	Cleveland.
Phosphorus, compound (phosphorus $\frac{1}{2}$ gr.; iron, reduced, 3 gr.; quinine $\frac{1}{2}$ gr.; strychnine $\frac{1}{4}$ gr.), in bottles of 100.	427 bottles.....	1.17	115	St. Louis.
Tinctures:				
Aconite, Rad., U. S. P., in bottles containing 8 ounces.	128 bottles.....	1.39	247	New York, Chicago, or St. Louis.
Belladonna, U. S. P., in bottles containing 4 ounces.	.....do.....	.23	304	Philadelphia.
Benzoin, compound, in bottles containing 8 ounces.	196 bottles.....	.60	93	Glens Falls, N. Y.

¹ Strong, Cobb & Co. brand.² Allaire-Woodward.³ B. & W. brand.⁴ Tablets.⁵ Squibb brand.⁶ Only.⁷ Maltbie Chemical Co. brand.⁸ Sugar-coated tablets.

MEDICAL SUPPLIES—Continued.*

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
MEDICINES—continued.				
Tinctures—Continued.				
Capsicum, in bottles containing 4 ounces.	113 bottles.....	1.20	247	New York, Chicago, or St. Louis.
Cardamom, compound, in bottles containing 16 ounces.	131 bottles.....	1.61	247	Do.
Cinchona, compound, U. S. P., in bottles containing 16 ounces.	91 bottles.....	.80	304	Philadelphia.
Colchicum seed, U. S. P., in bottles containing 4 ounces.	No award.....			(See Appendix.)
Digitalis, U. S. P., in bottles containing 4 ounces.	258 bottles.....	.22	304	Philadelphia.
Gentian, compound, U. S. P., in bottles containing 16 ounces.	458 bottles.....	1.65	247	New York, Chicago, or St. Louis.
Ginger, U. S. P., in bottles containing 8 ounces.	258 bottles.....	.28	304	Philadelphia.
Iodine, U. S. P., in g. s. bottles containing 8 ounces.	907 bottles.....	.48	93	Glens Falls, N. Y.
Chloride of iron, U. S. P., in g. s. bottles containing 16 ounces.	117 bottles.....	.59	157	St. Louis or New York.
Myrrh, in bottles containing 4 ounces.....	102 bottles.....	1.25	247	New York, Chicago, or St. Louis.
Nux vomica, U. S. P., in bottles containing 8 ounces.	287 bottles.....	1.35	247	Do.
Opium, camphorated, U. S. P., in bottles containing 16 ounces.	352 bottles.....	2.70	97	Louisville, Ky.
Opium, U. S. P. (laudanum), in bottles containing 16 ounces.	No award.....			(See Appendix.)
Rhubarb, aromatic, U. S. P., in bottles containing 16 ounces.	100 bottles.....	.67	304	Philadelphia.
Strophanthus, U. S. P., in bottles containing 4 ounces.....	66 bottles.....	.42	304	Philadelphia.
Valerian, ammoniated, U. S. P., in bottles containing 16 ounces.....	68 bottles.....	1.78	247	New York, Chicago, or St. Louis.
Miscellaneous:				
Acetanilid, powdered, U. S. P., in cartons containing 4 ounces.	81 cartons.....	1.325	157	St. Louis.
Acetphenetidin, powdered, U. S. P., in cartons containing 1 ounce.	No award.....			(See Appendix.)
Adeps Lanae, anhydrous, U. S. P., in cans containing 1 pound.	.....do.....			Do.
Alcohol, U. S. P., 190 proof, in bottles containing 32 ounces.	2,593 bottles.....	.93	257	Cleveland.
Alcohol, denatured, in cans containing 1 gallon, cased.	461 gallons.....	1.20	257	Do.
Alum, crystals, U. S. P., in cartons containing 4 pound.	164 cartons.....	1.18	247	New York, Chicago, or St. Louis.
Ammonium carbonate of, U. S. P., hard lumps, in cans containing 8 ounces.	102 cans.....	1.20	247	Do.
Ammonium chloride of, U. S. P., granulated, pure, in cartons containing 1 pound.	202 cartons.....	.25	157	St. Louis.
Amyl nitrite, U. S. P., pearls of (5 drops each).	206 boxes ¹.....	.40	201	Within United States.
Antipyrine, U. S. P., in 1-ounce cartons.	30 cartons.....	1.40	157	St. Louis.
Argyrol, in bottles containing 1 ounce.	552 bottles.....	1.35	257	Cleveland.
Silver, in bottles containing 1 ounce.	137 bottles.....	.86	201	Within United States.
Silver neoclate, in bottles containing 1 ounce.	62 bottles.....	.50	157	St. Louis.
Ichthargan, in bottles containing 1 ounce.	No award.....			(See Appendix.)
Cargentos, in bottles containing 1 ounce.	.....do.....			Do.
Silberol, in bottles containing 1 ounce.	.....do.....			Do.
Protargol, in bottles containing 1 ounce.	107 bottles ⁴.....	.85	157	St. Louis.
Atropine sulphate, U. S. P., crystals, in bottles containing 1 ounce.	33 bottles.....	7.50	157	Do.
Balsam, Peru, U. S. P., in bottles containing 2 ounces.	No award.....			(See Appendix.)
Betansaphthol, in tins containing 4 ounces.	137 tins.....	.355	157	St. Louis.
Bismuth, subnitrate of, U. S. P., in boxes containing 8 ounces.	131 boxes.....	1.45	157	Do.
	131 boxes.....	1.45	247	New York, Chicago, or St. Louis.
Bismuth, subgallate, U. S. P., in cartons containing 4 ounces.	60 cartons.....	.77	247	Do.

¹ Squibb brand.

² Gould & Son brand.

³ In tin boxes of 12.

⁴ Silver Protinate.

MEDICAL SUPPLIES—Continued.

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
MEDICINES—continued.				
Miscellaneous—Continued.				
Borax, powdered, sodium borate, U. S. P., in cartons containing 1 pound.	536 cartons.....	\$0.14	257	Cleveland.
Bromine, U. S. P., in g. s. bottles containing 1 ounce.	35 bottles.....	.20	157	St. Louis.
Calcium oxide, powdered, U. S. P., in bottles.	No award.....			(See Appendix.)
Calcium lactate, in bottles containing 8 ounces.	78 bottles.....	.82	157	St. Louis.
Chalk, prepared, U. S. P., in cartons containing 4 ounces.	No award.....			(See Appendix.)
Chloral hydrate of, U. S. P., crystals, in g. s. bottles containing 4 ounces.	65 bottles.....	.41	157	St. Louis.
Chloretone (in lieu of veronal), in 5-grain capsules in bottles of 100.	No award.....			(See Appendix.)
Chloroform, purified, U. S. P., in bottles containing $\frac{1}{2}$ pound, securely corked.	1,190 bottles.....	1.20	157	St. Louis.
Cocaine, hydrochlorate, U. S. P., in bottles containing $\frac{1}{2}$ ounce.	246 bottles.....	.93	157	St. Louis.
Cocoa butter, U. S. P., in $\frac{1}{2}$ -pound cakes.	196 cakes.....	.25	167	Do.
Collodion, U. S. P., in bottles containing 1 ounce.	777 bottles.....	.07	157	Do.
Copaiba, balsam of, U. S. P., in bottles containing 4 ounces.	No award.....			
Copper, sulphate of, U. S. P., in cartons containing 8 ounces.	422 cartons.....	1.25	157	Do.
Copper sulphate pencils.	No award.....			
Cresote, beechwood, U. S. P., in bottles containing 1 ounce.	263 bottles.....	.15	154	(¹).
Dionin, in bottles containing $\frac{1}{2}$ ounce.	No award.....			(See Appendix.)
Dover's powder, U. S. P. (powder of opium compound), in cartons containing 8 ounces.	34 cartons.....	1.625	157	St. Louis.
Ether, sulphate, U. S. P., stronger, for anesthesia, in tins containing $\frac{1}{2}$ pound.	1,160 tins.....	1.20	157	Do.
Ergot, aseptic, in boxes of three 1 c. c. ampoules.	No award.....			(See Appendix.)
Glycerin, U. S. P., pure, in bottles containing 16 ounces.	1,629 bottles.....	.80	257	Cleveland.
Gualacol carbonate, U. S. P., in cartons containing 1 ounce.	No award.....			(See Appendix.)
Gum arabic, powdered, pure, No. 1, U. S. P., in cartons containing $\frac{1}{2}$ pound.	60 cartons.....	.16	115	St. Louis.
Gum camphor, U. S. P., in tins containing 1 pound.	435 tins.....	1.00	167	Do.
Homatropine, hydrobromide, $\frac{1}{2}$ grain, in tubes of 10 tablets.	76 tubes.....	2.25	292	Oconomowoc, Wis.
Hydrastis, colorless, in bottles containing 16 ounces.	No award.....			(See Appendix.)
Hydrogen peroxide, U. S. P., nonexplosive.	2,309 bottles.....	.14	157	St. Louis.
Ichthyol, in bottles containing 16 ounces.	No award.....			
Iodoform, powdered, U. S. P., in bottles containing 4 ounces.	108 bottles.....	1.10	247	New York, Chicago, of St. Louis.
Lead, acetate of, granulated, pure, U. S. P., in cartons containing 8 ounces.	96 cartons.....	.14	157	St. Louis.
Licorice, compound, powdered, in cartons containing 1 pound.	122 cartons.....	.24	257	Cleveland.
Magnesia, carbonate, U. S. P., in packages containing 4 ounces.	181 packages.....	.14	247	New York, Chicago, or St. Louis.
Magnesia, sulphate of, U. S. P. (Epsom salt), in strong paper cartons containing 10 pounds.	No award.....			
Same as above, in strong paper cartons or boxes containing 50 pounds.	201 cartons.....	1.55	274	Kansas City, Mo.
Menthol, U. S. P., in bottles containing 1 ounce.	313 bottles.....	.26	157	St. Louis.
Mercury, ammoniated, U. S. P., in cartons containing 4 ounces.	173 cartons.....	.575	157	Do.
Mercury with chalk, U. S. P., in cartons containing 4 ounces.	21 cartons.....	.225	157	Do.

¹ Mallinckrodt Chemical Works brand.² St. Louis or anywhere east of Mississippi River in United States.

MEDICAL SUPPLIES—Continued.

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
MEDICINES—continued.				
Miscellaneous—Continued.				
Mercury, mild chloride of, U. S. P. (calomel), in cartons containing 4 ounces.	77 cartons.....	\$0.50	247	New York, Chicago, or St. Louis.
Mercury, yellow oxide of, powdered, U. S. P., in bottles containing 1 ounce.	76 cartons.....	.50	157	St. Louis.
Milk, malted, in bottles containing 1 pound.	32 bottles.....	.20	157	St. Louis.
Ointment, blue (Ung. Hydrargyri Dill., U. S. P.), in jars containing 1 pound, with cover.	2,069 bottles.....	.43	121	(¹).
Ointment, yellow oxide, mercury, U. S. P., ophthalmic, in tubes with small opening covered with screw cap, containing $\frac{1}{4}$ ounce.	232 jars.....	.93	157	St. Louis.
Ointment, copper citrate, in 1-dram collapsible tubes—	8,605 tubes.....	.03	93	Glens Falls, N. Y.
5 per cent.....	5,949 tubes.....	.02	93	Do.
10 per cent.....	5,237 tubes.....	.025	98	Do.
Ointment, zinc oxide, benzoated, U. S. P., in jars containing 1 pound.	1,102 jars.....	.49	247	New York, Chicago, or St. Louis.
Paraldehyde, in bottles containing 4 ounces.	107 bottles.....	.61	157	St. Louis.
Pancreatin, U. S. P., in 1-ounce bottles.	119 bottles.....	.20	158	New York or Newark.
Pepsin, sacch., U. S. P., in bottles containing 4 ounces.	207 bottles.....	.24	158	Do.
Physostigmine, salicylate, U. S. P., in tubes containing 10 grains.	No award.....			(See Appendix.)
Petrolatum, 112° F. melting point, U. S. P., light colored, in cans containing 1 pound.	.....do.....			Do.
Petrolatum, liquid, U. S. P., in sealed cans containing 1 pound.	.....do.....			Do.
Pituitrin, in boxes containing six 1-c. c. ampoules.	215 boxes.....	.85	9	Chicago.
Potassium, acetate of, U. S. P., in bottles containing 8 ounces.	32 bottles.....	.66	157	St. Louis.
Potassium, bitartrate of, pure, powdered, U. S. P. (cream of tartar), in cartons containing 1 pound.	108 cartons.....	.51	157	Do.
Potassium, chlorate of, powdered, U. S. P., in cartons containing $\frac{1}{4}$ pound.	16 cartons.....	.365	157	Do.
Potassium, iodide of, granulated, U. S. P., in bottles containing 8 ounces.	171 bottles.....	1.49	247	New York, Chicago, or St. Louis.
Potassium, nitrate of (saltpeter), powdered, U. S. P., in cartons containing 8 ounces.	51 cartons.....	.21	157	St. Louis.
Potassium, permanganate, U. S. P., in cartons containing 1 pound.	(²).....			
Potassium and sodium tartrate, U. S. P. (Rochelle salt), powdered, in cartons containing 1 pound.	343 cartons.....	.41	157	Do.
Quassa, U. S. P. (chips), in packages containing 1 ounce.	152 packages.....	.05	115	Do.
Quinine, sulphate of, U. S. P., in cans containing 6 ounces.	118 cans.....	3.85	157	Do.
Quinine and urea-hydrochloride, 1 per cent, in boxes of six 5-c. c. ampoules.	No award.....			(See Appendix.)
Resorcinol, U. S. P., in bottles containing 1 ounce.	50 bottles.....	1.00	157	St. Louis.
Senna, U. S. P. (leaves), in packages containing 1 pound.	144 packages.....	.29	115	Do.
Silver, nitrate, U. S. P., fused, in bottles containing 1 ounce.	33 bottles.....	.57	157	Do.
Silver, nitrate, U. S. P., crystals, in bottles containing 1 ounce.	80 bottles.....	.51	157	Do.
Syrup, iodide of iron, U. S. P., in bottles containing 4 ounces (specify brand bid on).	1,669 bottles.....	.1025	157	Do.
Syrup wild cherry, U. S. P., in bottles containing 4 ounces.	8,790 bottles.....	.07	257	Cleveland.

New York, Chicago, St. Louis, Omaha, Kansas City, St. Paul, San Francisco, Los Angeles, Portland, or Seattle.

¹ Only.

² Eliminated for this year.

MEDICAL SUPPLIES—Continued.

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
MEDICINES—continued.				
Miscellaneous—Continued.				
Sodium, hydroxide, U. S. P., caustic, purified sticks, in bottles containing 1 ounce.	90 bottles.....	\$0.07	157	St. Louis.
Sodium, bicarbonate, U. S. P., powdered, in cartons containing 1 pound.	537 cartons.....	.07	157	Do.
Sodium, bromide, U. S. P., granulated, in boxes containing 1 pound.	No award.....			
Sodium, phosphate, U. S. P., in bottles containing 4 ounces.	762 bottles.....	.0725	157	Do.
Sodium, calchylate, U. S. P., powdered, in cartons containing 8 ounces.	118 cartons.....	.475	157	Do.
Solution of ammonia (ammonia water), U. S. P., 10 per cent, in g. s. bottles containing 32 ounces.	1,252 bottles.....	.28	157	Do.
Solution, arsenite of potassa, U. S. P. (Fowler's solution), in bottles containing 8 ounces.	167 bottles.....	.10	304	Philadelphia.
Spirits ammonia, aromatic, U. S. P., in g. s. bottles containing 16 ounces.	290 bottles.....	.54	247	New York, St. Louis or Chicago.
Spiritsether, nitrus, U. S. P. (sweet spirits of niter), in bottles containing 16 ounces, securely corked with glass stopper attached separately.	261 bottles.....	.80	157	St. Louis.
Standard solution (1 to 1,000), active principle of suprarenal gland, in bottles containing 1 ounce.	No award.....			
Sulphur, washed, U. S. P., in cartons containing 1 pound.	459 cartons.....	.11	157	Do.
Suppositories, glycerin, U. S. P., each wrapped in tin foil, in bottles of 12, with paraffined cork.	491 bottles.....	.19	304	Philadelphia.
Thymol, U. S. P., in bottles containing 1 ounce.	36 bottles.....	1.18	157	St. Louis.
Tooth powder, in crew-top tin cans containing $\frac{1}{2}$ pound (formula: Precipitated chalk 4 parts,orris root 1 part, pulverized castile soap $\frac{1}{2}$ part, oil wintergreen, q. s.).	13,493 cans.....	.075	292	Oconomowoc, Wis.
Zinc, oxide of, U. S. P., in cartons containing 8 ounces.	187 cartons.....	.21	247	New York, Chicago, or St. Louis.
Zinc, sulphate of, U. S. P., in cartons containing 4 ounces.	56 cartons.....	.06	157	St. Louis.
INSTRUMENTS.				
Albuminometers, Esbach's.....	No award.....			(See Appendix.)
Applicators, wood, for nose and throat, in cartons of 72 dozen.	do.....			Do.
Aspirators, small.....	16 ¹	1.75	242	New York.
Atomizers:				
Hand.....	460 ².....	.3125	95	St. Louis.
Hand, suitable for oils.....	480 ².....	.4175	95	Do.
Bags, obstetrical, all leather, 18 inches long, metal frame, with four 2-ounce wide-mouth bottles; to have clamp to hold bag open when in use.	No award.....			(See Appendix.)
Bedpans, earthenware, yellow.....	do.....			Do.
Douche pans, white enamel.....	48.....	.90	168	St. Louis.
Binder's boards:				
24 by 12 inches.....	No award.....			(See Appendix.)
4 by 17 inches.....	do.....			Do.
Bougies, flexible, hard, assorted sizes.....	214.....	.04	219	St. Louis.
Breast pumps.....	375 ².....	.155	95	Do.
Carrier, for gauze, in packing uterus.....	13.....	.38	219	St. Louis.
Cases, pocket.....	39 ¹	5.25	242	New York.
Catheters, flexible, assorted sizes:				
Hard.....	191.....	.04	219	St. Louis.
Soft.....	692.....	.09	219	Do.
Catheters, irrigating, urethral and bladder:				
Male.....	23 ¹.....	.50	242	New York.
Female.....	21.....	.42	219	St. Louis.
Cupping glasses, with bulb.....	42.....	.23	167	Do.
Curettes, bone.....	13.....	.90	22	Chicago.

¹In bulk only; no separate packing for different points.²Only.

MEDICAL SUPPLIES—Continued

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
INSTRUMENTS—continued.				
Curettes, uterine, irrigating, medium size:				
Sharp.....	10 ¹	\$0.70	242	New York.
Dull.....	6 ¹.....	.70	242	Do.
Dilators, uterine, Goodell's:				
Large blade.....	1.....	3.75	242	Do.
Small blade.....	No award.....			(See Appendix.)
Directors, grooved.....	25.....	.09	219	St. Louis.
Douche tubes, uterine, glass.....	No award.....			(See Appendix.)
Elevators, periosteal.....	9.....	.90	22	Chicago.
Forceps, trachoma:				
Knapp's.....	No award.....			(See Appendix.)
Noyes, oval.....	do.....			Do.
Forceps, nemostatic, screw lock, 54-inch:				
Curved.....	68 ¹.....	.95	242	New York.
Straight.....	80 ¹.....	.90	242	Do.
Forceps:				
Dressing.....	43.....	.27	219	St. Louis.
Tongue.....	16.....	1.50	22	Chicago.
Tissue.....	32.....	.42	219	St. Louis.
Splinter.....	37.....	.21	219	Do.
Obstetrical.....	4 ¹	3.00	242	New York.
Velsellum, uterine.....	14 ¹	1.25	242	Do.
Inhalers, chloroform, Eschmarch's, complete with bottle.	No award.....			(See Appendix.)
Knives, operating:				
Large.....	27.....	.50	219	St. Louis.
Medium.....	51.....	.50	219	Do.
Small.....	56 ¹.....	.35	242	New York.
Mirrors, head, 4-inch, with steel spring (folding).	16 ¹	1.65	242	Do.
Needles:				
Extra, for hypodermic syringes.....	783.....	.025	219	St. Louis.
Surgical, assorted.....	157 dozen.....	.40	219	Do.
Needle holders, Richter pattern.....	14.....	2.50	219	Do.
Powder blowers, for larynx.....	No award.....			(See Appendix.)
Probes, with eye, 8-inch.....	39.....	.15	219	St. Louis.
Scissors, 6-inch, screw lock:				
Straight.....	82 pairs.....	.69	219	Do.
Curved.....	55 pairs.....	.94	219	Do.
Speculums:				
For the ear.....	18.....	.74	219	Do.
For the rectum.....	8.....	1.10	219	Do.
Speculums, for the vagina:				
Graves.....	8 ¹.....	.90	242	New York.
De Vibiss.....	11.....	1.00	219	St. Louis.
Sphygmomanometer, aneroid.....	No award.....			(See Appendix.)
Splints, assorted sizes.....	do.....			Do.
Sponge holders, for throat.....	41.....	.20	219	St. Louis.
Sterilizers for instruments, dressings, etc., including an alcohol vapor lamp or Bunsen burner.	No award.....			
Stethoscopes:				
Bowles's, with bell attachment.....	23.....	3.75	219	Do.
Binaural, Ford pattern.....	13 ¹	1.50	242	New York.
Stomach tube and bulb, in substantial case.....	43.....	1.15	167	St. Louis.
Syringes:				
Dental, for local anesthesia, complete.....	No award.....			(See Appendix.)
Ear, glass.....	104 ¹ dozen.....	.45	167	St. Louis.
Hard rubber, 2-ounce.....	90 ¹.....	.45	95	Do.
Hypodermic, in case with 2 needles.....	No award.....			(See Appendix.)
Penis, glass, cone point, in cases.....	do.....			Do.
Fountain, 2-quart, complete, in wooden box.....	do.....			Do.
Rectal, soft-rubber bulb, for infants.....	716 ¹.....	.095	95	St. Louis.
Tenaculums, uterine.....	16.....	.22	219	Do.
Tongue depressors:				
Metal.....	24 ¹.....	.22	242	New York.
Wood, one piece.....	3,151 dozen.....	.015	22	Chicago.
Tooth extracting sets, in substantial case.....	No award.....			
Tourniquets, field.....	17.....	.75	167	St. Louis.
Trocars, with canula.....	19 ¹.....	.55	242	New York.
Tubes, rectal, of soft rubber, for high enema, of good quality.....	134.....	.25	167	St. Louis.
Urinometers.....	22.....	.40	167	Do.

¹ In bulk only; no separate packing for different points.

² Only.

MEDICAL SUPPLIES—Continued.

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
INSTRUMENTS—continued.				
Ureometers, Doremus, with pipette.....	8.....	\$1.00	264	Rochester, N. Y.
Uterine dressing forceps, Emmet's.....	201.....	1.00	242	New York.
Uterine sounds, Sim's.....	121.....	.25	242	Do.
Wire for cleaning hypodermic needles, in bundles of 1 dozen.....	309 bundles.....	.05	22	Chicago.
SURGICAL DRESSINGS, ETC.				
Bags, rubber, for hot water:				
2-quart, for hospitals.....	574 ¹.....	.52	95	St. Louis.
2-quart, for field use among Indians.....	481 ¹.....	.52	95	Do.
Bags, aluminum, 2-quart, for hot water, for hospitals.....	1100.....	1.50	167	Do.
1411.....	1411.....	.800	115	Do.
Bags, ice, screw-capped, cloth-covered, 9-inch:				
For hospitals.....	278.....	.48	115	Do.
For field use among Indians.....	167.....	.32	167	Do.
Bandages, gauze, 10 yards long:				
2 inches wide.....	2,466 dozen.....	.56	115	Do.
3 inches wide.....	2,036 dozen.....	.60	115	Do.
Bandages, plaster of Paris:				
1½ inches by 5 yards.....	43 dozen.....	.85	17	Chicago.
2 inches by 5 yards.....	95 dozen.....	.95	17	Do.
3 inches by 5 yards.....	83 dozen.....	1.20	17	Do.
Bandages, woven, elastic, stretched:				
2½ inches by 3 yards.....	208.....	.24	17	Do.
2½ inches by 5 yards.....	240.....	.36	17	Do.
Bandages, suspensory.....	No award.....			(See Appendix.)
Cotton, absorbent, in cartons containing 1 pound (for general use).....	7,000 pounds.....	.30	17	Chicago.
Cotton, absorbent, in cartons containing ½ pound (for eye and ear).....	437 pounds ²			
Cotton, surgeon's nonabsorbent, in cartons containing ½ pound.....	No award.....			
Cotton wadding.....	do.....			
Finger cots, rubber, 1 dozen in a box.....	292 boxes ³.....	.09	95	St. Louis.
Gauze, borated, in paper cartons, in 1-yard lengths.....	1,880 yards.....	.09	17	Chicago.
Gauze, iodoform, in 1-yard glass containers.....	960 yards.....	.20	17	Do.
Gauze, plain, in packages of 25 yards:				
Sterilized.....	22,322 yards.....	.0625	17	Do.
Unsterilized.....	13,702 yards ⁴			
Ligature, catgut, in glass tubes:				
Plain.....	No award.....			(See Appendix.)
10-day chromicized.....	do.....			
Ligature, umbilical tape, linen, in glass tubes.....	do.....			
Ligature, silk, wound on cards containing about ½ ounce.....	364 cards.....	.045	219	St. Louis.
Ligature, silkworm gut, fine and medium, in sildes of 25 in case.....	255 cases.....	.24	219	Do.
Ligature, silver wire.....	10½ ounces.....	1.15	219	Do.
Lint, absorbent, in cartons containing 1 ounce.....	No award.....			
Oiled silk, opaque, 30 inches wide:				
In 1-yard rolls.....	do.....			(See Appendix.)
In 5-yard rolls.....	do.....			Do.
Pads, Kelly's, obstetrical, with sleeve, about 24 by 4½ inches.....	412.....	3.10	95	St. Louis.
Pencil, hair (assorted sizes), in vials.....	No award.....			
Plaster, belladonna, 1 yard, in a tin.....	697 yards.....	.48	17	Chicago.
Plaster, cantharidis, 1 yard in a tin.....	62 yards.....	.40	17	Do.
Plaster, mustard, 4 yards in a tin.....	772 yards.....	.105	17	Do.
Plaster, porous.....	743 dozen.....	.40	17	Do.
Plaster, zinc oxide, adhesive, surgeon's, on spools, 10 yards long:				
1 inch wide.....	959 spools.....	.18	17	Do.
2 inches wide.....	1,057 spools.....	.32	17	Do.
3 inches wide.....	925 spools.....	.43	17	Do.
Rubber sheeting, double-coated, 1½ yards wide:				
Maroon.....	388 yards ⁵			
White.....	do.....	.80	95	St. Louis.

¹ In bulk only; no separate packing for different points.² Only.³ Cotton, absorbent, in 1-pound carton, selected to fill this item.⁴ Gauze, sterilized, selected to fill this item.⁵ Rubber sheeting, white, selected to fill this item.

MEDICAL SUPPLIES—Continued.

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
SURGICAL DRESSINGS, ETC.—continued.				
Tubes, rubber, drainage.....	208 yards.....	\$0.20 .20 .35	219	St. Louis.
Tubing, rubber:				
$\frac{1}{2}$ -inch.....	216 yards.....	.0225	95	Do.
$\frac{3}{4}$ -inch.....	435 yards.....	.0625	95	Do.
DISINFECTANTS.				
Liquor cresolis compound, U. S. P., in bottles containing 16 ounces.....	1,724 bottles.....	.25	93	Glens Falls, N. Y.
Calcium hypochlorite (bleaching powder), in 5-pound containers, noncorrosive metal.....	1,613 cans.....	.325	274	Kansas City, Mo.
Solution, formaldehyde, 40 per cent solution:				
In bottles containing 32 ounces.....	1,421 bottles.....	.45	157	St. Louis.
In kegs containing 5 gallons.....	76 kegs.....	7.72	274	Kansas City, Mo.
Sulphur, in rolls (large pieces, not crushed)...	830 pounds.....	.035	167	St. Louis.
HOSPITAL STORES.				
Capsicum, powder, in bottles containing 1 pound.....	40 bottles.....	.33	115	Do.
Flaxseed meal, in tins, containing 5 pounds (crushed seed, not cakes).....	No award.....			
Gelatin.....	do.....			
Ginger, powdered, in cartons containing 1 pound.....	76 cartons.....	.26	115	Do.
Soap:				
For medicinal use, in cakes.....	2,562 pounds.....	.225	167	Do.
Castile, white, in cakes.....	2,714 pounds.....	.17	167	Do.
Green, in jars containing 1 pound.....	938 pounds.....	.19	274	Kansas City, Mo.
MISCELLANEOUS.				
Bags, paper:				
$\frac{1}{2}$ -pound capacity.....	No award.....			
1-pound capacity.....	do.....			
Basin, pos, medium size, enameled ware.....	do.....			(See Appendix.)
Bedbug destroyer, in tin cans containing 16 ounces.....	do.....			
Boxes, ointment, impervious.....	2,500 dozen.....	.125	123	Moore, Pa.
Boxes, powder.....	No award.....			(See Appendix.)
Brushes, nail or hand, good grade, for surgical use.....	do.....			Do.
Cases, medicine, buggy.....	do.....			Do.
Capsules, gelatin.....	do.....			Do.
Chairs, operating.....	2.....	13.50	22	Chicago.
Cork pressers.....	No award.....			
Corks, velvet.....	do.....			
Cups, sputum, paper.....	657 hundred.....	.40	31	St. Louis, Chicago, New York.
Holders, metal, with cover, to hold paper sputum cups.....	No award.....			
Dispensatory, United States, cloth (latest edition).....	do.....			
Droppers, medicine.....	do.....			(See Appendix.)
Envelopes, drug, medium size, by the 100.....	do.....			
Formulary, National (latest edition).....	14.....	2.50	167	St. Louis.
Funnels, glass, 8-ounce.....	No award.....			
Glasses, colored, riding bow, for the eyes, assorted colors.....	4,077 ⁴.....	.0725	153	Chicago.
Hones.....	21 ⁴.....	.14	153	Do.
Labels, blank, prescription, gummed, without any printing:				
1 by 2 inches.....	No award.....			(See Appendix.)
2 by 3 inches.....	do.....			Do.
3 by 4 inches.....	do.....			Do.
Measures, graduated, glass:				
8-ounce.....	do.....			Do.
4-ounce.....	do.....			Do.
Minim.....	do.....			Do.
Medicine glasses, $\frac{1}{2}$ -ounce, graduated.....	do.....			Do.
Mortars and pestles:				
Wedgehead, 6-inch.....	do.....			
Glass, 4-inch.....	do.....			

¹ No. 1.² No. 2.³ No. 3.⁴ Only.

MEDICAL SUPPLIES—Continued.

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
MISCELLANEOUS—continued.				
Nipples, for nursing bottles, to fit over neck of bottle.	No award.....	.....	.....
Papers, blue and white, 4½ by 6 inches, for selditz powder.	.....do.....	.....	.....
Paper, filtering, round, gray, 10-inch.	.....do.....	.....	.....	(See Appendix.)
Paper, litmus, blue and red, in boxes of 1 dozen books.	85 boxes.....	\$0.15	219	St. Louis.
Papers, powder, 2½ by 3½ inches.	No award.....	.....	.....
Paper, wrapping.	.....do.....	.....	.....
Percolators, glass, ½-gallon.	.....do.....	.....	.....	(See Appendix.)
Pill boxes, paper, in boxes of 1 gross.	.....do.....	.....	.....	Do.
Pill tiles, 8-inch, graduated.	.....do.....	.....	.....	Do.
Saddlebags, medical, convertible.	.....do.....	.....	.....	Do.
Scales, baby, spring.	28¹.....	.30	242	New York.
Scales and weights, prescription.	20.....	2.50	167	St. Louis.
Test-type and astigmatic chart (for testing vision), International standard.	No award.....	.....	.....	(See Appendix.)
Spatulas:				
3-inch.	63.....	.16	153	Chicago.
6-inch.	63.....	.25	153	Do.
Spirit lamps.	No award.....	.....	.....	(See Appendix.)
Still, for making distilled water, ½-gallon size.	.....do.....	.....	.....	Do.
Tables, operating.	4.....	37.50	22	Chicago.
Test tubes, 8-inch.	142 dozen.....	.15	167	St. Louis.
Thermometers, clinical, Fahrenheit, with certificate and case.	2,302.....	.50	22	Chicago.
Tubes, drinking, glass, assorted sizes.	No award.....	.....	.....	(See Appendix.)
Twine, wrapping, cotton.	.....do.....	.....	.....
Vials:				
1-ounce.	.....do.....	.....	.....	Do.
1-ounce.	.....do.....	.....	.....	Do.
2-ounce.	.....do.....	.....	.....	Do.
4-ounce.	.....do.....	.....	.....	Do.
6-ounce.	.....do.....	.....	.....	Do.

SCHOOL BOOKS AND SUPPLIES.

SCHOOL TEXTS.				
Charts:				
The North American Bird and Nature Study Chart.—John C. Montjoy.	(¹).....	.....	.....
The Elson-Runkel Reading Chart.....	25.....	\$2.40	2	Chicago.
The Arnett Vocabulary Builder.....	(²).....	.....	.....
Wooster's Industrial Reading Chart.....	(²).....	.....	.....
Johnson's Anatomy and Physiology Chart.	7.....	13.50	2	Do.
Wooster's Word Cards.....	(²).....	.....	.....
Primers:				
Elson-Runkel Primer.....	674.....	.27	2	Do.
Elson-Runkel Primer, Teacher's Edition.	28.....	.44	2	Do.
Supplementary equipment for Elson-Runkel books—				
I (Primer), 20 outline pictures.....	54.....	.20	2	Do.
II (Primer), 75 letter and phonogram cards.	55.....	.35	2	Do.
III (Primer), 303 words in Primer....	33.....	1.10	2	Do.
Summer's.....	(³).....	.....	.....
Palmer Method Primer.....	(³).....	.....	.....
Wooster Primer, The.....	(³).....	.....	.....
Aldine, Spaulding & Bryce.....	(³).....	.....	.....
Riverside Primer, Sickle and Seegmiller ².	622.....	.24	122	Cambridge, Mass.
For adult beginners:				
First Book for Non-English Speaking People, Harrington.	122.....	.22	109	Chicago.
Second Book for Non-English Speaking People, Harrington.	168.....	.25	109	Do.
Language Lessons to Accompany First Book, Harrington.	63.....	.22	109	Do.

¹ In bulk only; no separate packing for different points.

² Eliminated for this year.

³ Add 30 cents per case for carting from Riverside Press to railroad depot when shipped by freight.

SCHOOL BOOKS AND SUPPLIES—Continued.

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
SCHOOL TEXTS—continued				
Readers:				
New Education Readers, Book 1, Demarest & Van Sickle.	626.....	\$0.28	5	Chicago.
Perception Cards for Book 1, Demarest & Van Sickle.	15 sets.....	1.60	5	Do.
New Education Readers, Book 2, Demarest & Van Sickle.	432.....	.28	5	Do.
Perception Cards for Book 2, Demarest & Van Sickle.	13 sets.....	.60	5	Do.
New Education Readers, Book 3, Demarest & Van Sickle.	232.....	.32	5	Do.
New Education Readers, Book 4, Demarest & Van Sickle.	108.....	.36	5	Do.
Elson Primary Reader—				
Book I.....	741.....	.28	2	Do.
Book II.....	781.....	.35	2	Do.
Supplementary equipment for Elson-Runkel Books—				
VI (Book I), 91 letter and phonogram cards.	28 sets.....	.45	2	Do.
VII (Book I), word cards, 240 words.	29 sets.....	.80	2	Do.
VIII (Book II), 60 letter and phonogram cards.	26 sets.....	.31	2	Do.
Elson Primary Reader—				
Book III.....	576.....	.40	2	Do.
Book IV.....	766.....	.40	2	Do.
Elson Grammar School Reader—				
Book 1.....	563.....	.44	2	Do.
Book 2.....	469.....	.44	2	Do.
Book 3.....	330.....	.52	2	Do.
Book 4.....	282.....	.52	2	Do.
Graded Classics, Halliburton & Norvell—				
First Reader.....	(1).....			
Second Reader.....	(1).....			
Third Reader.....	(1).....			
Fourth Reader.....	(1).....			
Fifth Reader.....	(1).....			
Wooster Readers, The—				
First.....	717.....	.22	2	Do.
Second.....	445.....	.26	2	Do.
Third.....	366.....	.30	2	Do.
Fourth.....	190.....	.40	2	Do.
Fifth.....	161.....	.48	2	Do.
Progressive Road to Reading, Burchill—				
Book 1.....	(1).....			
Book 2.....	(1).....			
Book 3, Introductory.....	(1).....			
Book 3.....	(1).....			
Book 4.....	(1).....			
Riverside Readers, Sickle and Seegmiller—				
First.....	389.....	\$.28	122	Cambridge, Mass.
Second.....	409.....	\$.32	122	Do.
Third.....	281.....	\$.40	122	Do.
Fourth.....	237.....	\$.44	122	Do.
Fifth.....	166.....	\$.44	122	Do.
Sixth.....	241.....	\$.44	122	Do.
Seventh.....	86.....	\$.44	122	Do.
Eighth.....	100.....	\$.48	122	Do.
Aldine Readers, Spaulding & Bryce—				
Manual for Teachers.....	23.....	.50	2	Chicago.
First Reader.....	528.....	.30	2	Do.
Second Reader.....	500.....	.36	2	Do.
Third Reader.....	343.....	.42	2	Do.
Fourth Reader.....	219.....	.55	2	Do.
Fifth Reader.....	164.....	.62	2	Do.
SPELLING.				
New Word Speller, Wohlforth & Rogers:				
Grades 1 and 2.....	506.....	.25	2	Do.
Grades 3, 4, and 5.....	941.....	.20	2	Do.
Grades 6, 7, and 8.....	335.....	.20	2	Do.

¹ Eliminated for this year.

² Add 30 cents per case for carting from Riverside Press to railroad depot when shipped by freight.

SCHOOL BOOKS AND SUPPLIES—Continued.

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
SPELLING—continued.				
Spelling Book, Bailey-Manly:				
Part I.....	332.....	\$0.128	122	Cambridge, Mass.
Part II.....	165.....	.16	122	Do.
Wayne's Sight Speller.....	96.....	.24	2	Chicago.
GEOGRAPHY,				
First Book, Tarr & McMurray.....	575.....	.52	155	New York.
Second Book, Tarr & McMurray.....	228.....	.88	155	Do.
Home Geography, Frye.....	543.....	.29	91	Chicago.
First Steps in Geography, Frye.....	407.....	.52	91	Do.
Grammar School Geography, Frye.....	(?).....			
Elementary Geography, Dodge.....	305.....	.45	2	Do.
Advanced Geography, Dodge.....	156.....	.95	2	Do.
PHYSIOLOGY AND HYGIENE.				
Primer of Hygiene, Ritchie & Caldwell.....	209.....	.40	2	Chicago.
Primer of Sanitation, Ritchie.....	128.....	.46	2	Do.
Primer of Physiology, Ritchie.....	199.....	.55	2	Do.
Human Physiology, Ritchie.....	107.....	.79	2	Do.
Human Body and Health, Davison:				
Elementary.....	367.....	.32	5	Do.
Intermediate.....	261.....	.40	5	Do.
Advanced.....	103.....	.64	5	Do.
Elements of Physiology and Sanitation, Rettger.....	(?).....			
DICTIONARIES, WEBSTER.				
Elementary School Dictionary.....	830.....	.72	5	Do.
Secondary School Dictionary.....	(?).....			
New International Dictionary.....	(?).....			
AGRICULTURE.				
Beginner's Guide to Fruit Growing, Waugh.....	35.....	.57	194	New York.
Beginners' Botany, Bailey.....	155.....	.48	155	Do.
Chemistry of Plant and Animal Life, Snyder.....	18.....	1.20	155	Do.
Chemistry of Farm and Home, Tottenham & Ince.....	10.....	.93	283	St. Paul.
Chemistry in the Home, Weed.....	10.....	.96	5	Chicago.
Disease of Economic Plants, Stevens & Hall.....	10.....	1.60	165	New York
Feeding of Animals, Jordan.....	31.....	.60	47	Chicago.
Field Crops, Wilson & Warburton.....	28.....	1.12	283	St. Paul
Fruit Harvesting, Storing, and Marketing, Waugh.....	11.....	.70	194	New York.
Insects and Insecticides, Weed.....	82.....	1.05	194	Do.
Farm Management, Warren.....	29.....	1.40	194	Do.
Practical Course in Botany, Andrews.....	46.....	1.00	5	Chicago.
Physics of the Household, Lynde.....	43.....	1.00	155	New York.
Productive Farming, Davis, Grades 5 and 6.....	85.....	.75	152	Within United States.
Soils and Soil Fertility, Whitson & Walston.....	219.....	.93	283	St. Paul.
School Agriculture, Wood, Grades 4, 5, and 6.....	335.....	.68	194	New York.
Types and Breeds of Farm Animals, Plumb.....	72.....	1.60	91	Chicago.
LANGUAGE AND GRAMMAR.				
Primary Language Lessons, Serl, Grades 2 and 3.....	1,085.....	.28	5	Chicago
Intermediate Language Lesson, Serl, Grades 4, 5, and 6.....	1,322.....	.45	5	Do.
Aldine First Language Book, Spaulding & Bryce, Grades 3 and 4.....	347.....	.40	2	Do
Aldine Language Method Manual for Teachers using First Language Book, Spaulding & Bryce.....	16.....	.50	2	Do.
Aldine Second Language Book, Grades 5 and 6, Spaulding & Bryce.....	317.....	.45	2	Do.
Aldine Language Method Manual for Teachers using Second Language Book, Spaulding & Bryce.....	7.....	.50	2	Do.

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SCHOOL BOOKS AND SUPPLIES—Continued.

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
LANGUAGE AND GRAMMAR—continued.				
Language Work for the Second Year, O'Shea-Eichman.	164.....	\$0.24	166	New York.
Composition Book by Grades, O'Shea-Eichman:				
Third year.....	260.....	.24	166	Do.
Fourth year.....	227.....	.24	166	Do.
Fifth year.....	180.....	.24	166	Do.
Sixth year.....	171.....	.24	166	Do.
Seventh year.....	54.....	.27	166	Do.
Eighth year.....	39.....	.27	166	Do.
Live Language Lessons, Driggs:				
First Book.....	360.....	.39	277	Chicago.
Second Book.....	505.....	.39	277	Do.
Third Book.....	399.....	.48	277	Do.
Guide Book to English, Gilbert & Harris:				
Book 1.....	46.....	.36	2	Do.
Book 2.....	129.....	1.48	2	Do.
The Business Letter, Dwyer.....	159.....	.68	122	Cambridge, Mass.
ARITHMETIC.				
Every Day Arithmetic, Hoyt & Peet:				
Book I.....	1,245.....	1.32	122	Cambridge, Mass.
Book II.....	858.....	1.32	122	Do.
Book III.....	513.....	1.36	122	Do.
First Year in Numbers, Hoyt & Peet.....	823.....	1.28	122	Do.
Primary Exercises in Arithmetic, Silver:				
No. I.....	346.....	.08	5	Chicago.
No. II.....	347.....	.08	5	Do.
No. III.....	198.....	.12	5	Do.
Durell's Arithmetic:				
Book 1, Part I.....	661.....	.24	166	New York.
Book 1, Part II.....	726.....	.34	166	Do.
Book 2.....	413.....	.51	166	Do.
Book 3.....	163.....	.54	166	Do.
Farm Arithmetic, Burkett & Swartzell.....	139.....	.75	194	Do.
Industrial Arithmetic, Gardner & Murtland (for girls).....	169.....	.48	109	Chicago.
Rural Arithmetic, Calfee.....	173.....	.24	91	Do.
Wooster's Number Cards.....	47 dozen.....	.48	2	Do.
Wooster's Arithmetic:				
Book 1.....	478.....	.21	208	Topeka, Kans.
Book 2.....	328.....	.285	208	Do.
Progressive Arithmetic, Milne:				
First Book.....	227.....	.28	5	Chicago.
Second Book.....	177.....	.32	5	Do.
Third Book.....	43.....	.36	5	Do.
Shop Problems in Mathematics, Breckinridge-Mercean-Moore.....	25.....	.80	91	Do.
Mental Arithmetic, Milne.....	13.....	.28	5	Do.
Progressive Mental Arithmetic, Gifford:				
Book 1.....	2.....	.33	2	Do.
Book 2.....	3.....	.33	2	Do.
Vocational Algebra, Wentworth & Smith.....	25.....	.40	91	Do.
UNITED STATES HISTORY.				
Mace's History Reader:				
Book I.....	591.....	.28	217	Chicago.
Book II.....	358.....	.28	217	Do.
Book III.....	398.....	.28	217	Do.
Primary History of United States, McMaster.....	190.....	.48	5	Do.
Brief History of United States, McMaster.....	210.....	.80	5	Do.
First Steps in the History of the United States, Mowry.....	61.....	.50	2	Do.
Essentials of United States History, Mowry.....	71.....	.80	239	New York.
Beginner's American History, Montgomery.....	276.....	.48	91	Chicago.
Elementary American History, Montgomery.....	108.....	.60	91	Do.
Brief History of South Dakota, Robinson.....	1.....	.48	5	Do.
The Story of Our Country, Elson & MacMullan:				
Book 1.....	132.....	.53	2	Do.
Book 2.....	162.....	.56	2	Do.

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SCHOOL BOOKS AND SUPPLIES—Continued.

Articles.	Quantity awarded.	Unit price.	No. of con- tractor.	Point of delivery.
UNITED STATES HISTORY—continued.				
Books for teachers:				
School History of the United States, Mace.	37.....	\$0.80	217	Chicago.
School History of the United States, McMaster.	9.....	.79	2	Do.
Leading Facts of American History, Montgomery.	70.....	.80	91	Do.
CIVIL GOVERNMENT.				
How the People Rule, Hoxie, sixth grade	(1).....			
First Lessons in Civics, Forman, fifth grade	458.....	.48	5	Do.
Essentials in Civil Government, Forman, eighth grade.	268.....	.48	5	Do.
Government in the United States, Garner	10.....	.80	5	Do.
How We Are Governed, Dawes, eighth grade	78.....	.80	91	Do.
Parliamentary Law, Paul	19.....	.65	2	Do.
SINGING.				
Carmina for Social Worship, Turner	(1).....			
Songs of the Nation, Revised, Johnson	347.....	.48	239	New York.
Assembly Song Book, Rix	(1).....			
Abridged Academy Song Book, Levermore	(1).....			
Laurel Music Reader, Special Edition, Tomlins.	(1).....			
Songs Every One Should Know, Johnson	(1).....			
MUSIC INSTRUCTION.				
Natural Music Course, Ripley & Tapper:				
Harmonic Primer	128.....	.24	5	Chicago.
Harmonic First Reader	216.....	.24	5	Do.
Harmonic Second Reader	192.....	.28	5	Do.
Harmonic Third Reader	71.....	.32	5	Do.
Harmonic Fourth Reader	37.....	.32	5	Do.
Harmonic Fifth Reader	27.....	.40	5	Do.
Music in the Grades (Manual for Teachers)	17.....	.12	5	Do.
Zuchtmann's American Music System:				
Book 1	78.....	.32	155	New York.
Book 2	79.....	.38	155	Do.
Book 3	32.....	.42	155	Do.
Book 4	25.....	.42	155	Do.
Teacher's Manual	8.....	.80	155	Do.
DRAWING.				
Blackboard Sketching, Whitney	47.....	.48	27	Chicago or New York.
Constructive Work for Schools without Special Equipment, Newell.	25.....	.96	27	Do.
Drawing paper, 8 by 11, 100 sheets in pack	4,178.....	.112	115	St. Louis or Chicago.
Mechanical Drawing and Practical Drafting, Sampson.	(1).....			
Anthony's Technical Drawing Series:				
Anthony's Mechanical Drawing	(1).....			
Daniel's Frehand Lettering	(1).....			
Prang's Progressive Drawing Books:				
Teacher's Outline Book	(1).....			
Book 1	(1).....			
Book 2	(1).....			
Book 3	(1).....			
Book 4	(1).....			
Book 5	(1).....			
Book 6	(1).....			
Book 7	(1).....			
Book 8	(1).....			
The Prang Elementary Course in Art Instruc- tion:				
Manual for Teachers—				
First year	(1).....			
Second year	(1).....			
Third year	(1).....			
Fourth year	(1).....			
Fifth year	(1).....			
Sixth year	(1).....			
Seventh year	(1).....			
Eighth year	(1).....			

1 Eliminated for this year.

SCHOOL BOOKS AND SUPPLIES—Continued.

Articles.	Quantity awarded.	Unit price.	No. of con- tractor.	Point of delivery.
DRAWING—continued.				
Prang's set color box, No. 1.....	500.....	\$0.16	27	New York or Chicago.
Applied Arts Drawing Books, Seegmiller:				
First year—				
Autumn.....	(1).....			
Spring.....	(1).....			
Second year—				
Autumn.....	(1).....			
Spring.....	(1).....			
Third year—				
Autumn.....	(1).....			
Spring.....	(1).....			
Fourth year—				
Autumn.....	(1).....			
Spring.....	(1).....			
Fifth year—				
Autumn.....	(1).....			
Spring.....	(1).....			
Sixth year—				
Autumn.....	(1).....			
Spring.....	(1).....			
Seventh year—				
Autumn.....	(1).....			
Spring.....	(1).....			
Eighth year—				
Autumn.....	(1).....			
Spring.....	(1).....			
PENMANSHIP.				
Birch Sectional Writing Chart, consisting of:				
1 metal wall holder, 36 inches long by 8½ inches wide.....	(1).....			
1 alphabet, caps., comma, period.....	(1).....			
1 alphabet, small letters, including dollar and percentage signs and digits.....	(1).....			
1 manual of Course of Study for Teachers.....	(1).....			
3 large illustration cards, 8 by 18 inches.....	(1).....			
Extra holders, 36 by 8½ inches, metal, for above chart.....	(1).....			
Extra alphabet, caps., for above chart.....	(1).....			
Extra alphabet, small, including digits, etc., for above chart.....	(1).....			
Extra manuals and set of 3 illustration cards for above chart.....	(1).....			
Steadman's Graded Lessons in Writing, Nos 1 to 8 (in pads).....	(1).....			
Steadman's Business Forms (in pads).....	(1).....			
Steadman's Writing Chart (in sets of 5 sheets).....	(1).....			
Writing Lessons for Primary Grades 1 and 2, Palmer.....	187½ dozen.....	1.20	199	New York, Chicago, Boston, Philadelphia, Cedar Rapids. Do.
Palmer's Method of Business Writing, Grades 3 to 8.....	65 dozen.....	1.92	199	
MISCELLANEOUS.				
Bow-Wow and Mew-Mew, Craile.....	(1).....			
The Cat That Was Lonesome, Chadwick-Freeman.....	(1).....			
The Woman and Her Pig, Chadwick-Freeman.....	(1).....			
The Mouse That Lost Her Tail, Chadwick-Freeman.....	(1).....			
Dramatic First Reader, Cyr.....	(1).....			
Short Stories for Little Folks, Bryce.....	45.....	.30	2	Chicago.
Mother Goose Reader, Mickens.....	(1).....			
Little Nature Studies, Vol. I, Burt.....	(1).....			
Nature's Byways, Ford.....	(1).....			
Nature Stories for Young Readers (Plants), Bass.....	(1).....			
Nature Stories for Young Readers (Animals), Bass.....	(1).....			
Reader for Primary Grades, Holbrook.....	8.....	.26	2	Do.
In Fableland, Serl.....	(1).....			
Oriole Stories, Lane.....	(1).....			
Stories for Children, Lane.....	(1).....			
Polly and Dolly Blaisdell.....	(1).....			
Reynard the Fox, Smythe.....	(1).....			

¹ Eliminated for this year.

SCHOOL BOOKS AND SUPPLIES—Continued.

Articles.	Quantity awarded.	Unit price.	No. of con- tractor.	Point of delivery.
MISCELLANEOUS—continued.				
Little Plays for Little People, Noyes.....	(1)			
Little Dramas, Skinner and Lawrance.....	(1)			
Fishing and Hunting (Children of Many Lands), Dutton.....	(1)			
Indian Primer, Fox.....	(1)			
Stories of Red Children, Brooks.....	(1)			
Around the World, Book 1.....	(1)			
Merry Animal Tales, Bigham.....	(1)			
Geographical Nature Studies, Payne.....	(1)			
Humane Education, Book (1st part only), Page.....	(1)			
In the Animal World (in color), Serl.....	(1)			
Peter and Polly, Lucia.....	(1)			
Nature Studies, Primary Grades, Cummings.....	(1)			
Fanciful Flower Tales, Bigham.....	(1)			
Five Little Strangers, Schwartz.....	(1)			
Great Americans for Little Americans, Eggleston.....	(1)			
Geographical Readers, Harmon and Nivers: Book I.....	(1)			
Book II.....	(1)			
Hlwawtha Primer, Holbrook.....	(1)			
Home Geography for Primary Pupils, Fair- banks.....	(1)			
Around the World, Book 2, Tolman.....	(1)			
In Field and Pasture (Children of Many Lands), Dutton.....	(1)			
Barbara's Philippine Journey, Burks.....	(1)			
Ethics of Success, Book 1, Thayer.....	(1)			
Animal Fables, Stafford.....	(1)			
Book of Nature Myths, Holbrook.....	(1)			
Book of Fables and Folk Stories, Souder.....	(1)			
Dramatic Stories, Skinner.....	(1)			
Fairy Tales for Little Readers, Burke.....	(1)			
Fairy Stories and Fables, Baldwin.....	(1)			
Legends of the Red Children, Pratt.....	(1)			
Old Indian Legends, Zit-ka-la-Za.....	(1)			
Bummyboy and Grizzly Bear, Smith.....	(1)			
Bunny Brighteyes, Smith.....	(1)			
The Tale of Bunny Cottontail, Smith.....	(1)			
A Boy on a Farm, Abbott.....	(1)			
Animals at Home, Bartlett.....	(1)			
Farm Life Reader, Book IV, Duncan, Evans & Duncan.....	(1)			
The Blue Bird, for children, Maeterlinck.....	(1)			
First Book of Birds, Miller.....	(1)			
Humane Education, Book 2, Page.....	(1)			
Stories of Humble Friends, Pyle.....	(1)			
Some Useful Animals, Montefith.....	(1)			
Ten Common Trees, Stokes.....	(1)			
Betty in Canada, McDonald, school edition.....	(1)			
Manuel in Mexico, McDonald, school edition.....	(1)			
Kathleen in Ireland, McDonald, school edition.....	(1)			
Donald in Scotland, McDonald, school edition.....	(1)			
The Story of Two Boys, Johnson.....	(1)			
Founders of Our Country, Coe.....	(1)			
Fifty Famous People, Baldwin.....	(1)			
Children of History, Early Times, Hancock.....	(1)			
Docas, the Indian Boy, Snedden.....	(1)			
Four American Poets, Cody.....	(1)			
The Farmer and His Friends, Tappan.....	(1)			
Among the Giants, Neher.....	(1)			
Fifty Famous Stories, Baldwin.....	(1)			
Ethics of Success, Book 2, Thayer.....	(1)			
Around the World, Book 2, Tolman.....	(1)			
Our Own Country, Book III, Smith.....	(1)			
Stories of American Life and Adventure, Eggleston.....	(1)			
Nature Studies, Lower Grammar Grades, Cummings.....	(1)			
Farm Life Reader, Book V, Duncan, Evans & Duncan.....	(1)			
Grasshopper Green's Garden, Schwartz.....	(1)			
Little Brothers to the Bear, Long.....	(1)			
Nature Studies on the Farm, Keller.....	(1)			

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SCHOOL BOOKS AND SUPPLIES—Continued.

Articles.	Quantity awarded.	Unit price.	No. of con- trac- tor.	Point of delivery.
MISCELLANEOUS—continued.				
Our Birds and Their Nestlings, Walker.....	(1)			
Plants and Their Children, Dana.....	(1)			
Squirrels and Other Fur-bearers, Burroughs.	(1)			
Trail to the Woods, Hawkes.....	(1)			
The Race of the Swift, Litze.....	(1)			
True Bird Stories, Miller.....	(1)			
Wilderness Babies.....	(1)			
American Hero Stories, Tappan.....	(1)			
American Indians, Starr.....	(1)			
Abraham Lincoln, Baldwin.....	(1)			
Four American Explorers, Beebe.....	(1)			
Four American Inventors, Perry.....	(1)			
Around the World, Book 4, Tolman.....	(1)			
Four American Indians, Whitney and Perry.	(1)			
Indian History for Young Folks, Drake.....	(1)			
Four Great Americans, Baldwin.....	(1)			
Great Inventions and Discoveries, Piercy.....	(1)			
Ethics of Success, Book 3, Thayer.....	(1)			
Four American Pioneers, Perry and Beebe..	(1)			
Life of Lincoln for Boys, Sparhawk.....	(1)			
Children of History, Later Times, Hancock..	(1)			
Choice Literature, Book 1, Intermediate, Williams.....	(1)			
Smoky Day's Wigwam Evenings, Eastman..	(1)			
The Children's Hour, 10 vols., Houghton, Mifflin Co.....	(1)			
Recitations for Assembly and Class Rooms, O'Neill.....	(1)			
The Louisa Alcott Story Book.....	(1)			
Frebrands, Martin and Davis.....	(1)			
Marta in Holland, McDonald, school edition.	(1)			
Girda in Sweden, McDonald, school edition.	(1)			
Frits in Germany, McDonald, school edition.	(1)			
How We are Clothed, Chamberlain.....	(1)			
How We are Fed, Chamberlain.....	(1)			
How We Travel, Chamberlain.....	(1)			
How We are Sheltered, Chamberlain.....	(1)			
Stories of Industry, Chase & Clow: Vol. I.....	(1)			
Vol. II.....	(1)			
Stories of Useful Inventions, S. E. Forman..	(1)			
Discovery of the Old Northwest, Baldwin..	(1)			
Four American Patriots, Burton.....	(1)			
Four American Naval Heroes, Beebe.....	(1)			
Indian Boyhood, Eastman.....	(1)			
Iron Star, The, True.....	(1)			
Indian Story and Song from North America, Fletcher.....	(1)			
Dumb Animals and How to Treat Them, Whitehead.....	(1)			
Stories from British History, Bevan.....	(1)			
Around the World, Book 5, Tolman.....	(1)			
Pioneers of Rocky Mountains and the West, McMurray.....	(1)			
Pioneers of Land and Sea, McMurray.....	(1)			
Pioneers of the Mississippi Valley, McMurray.	(1)			
Stories from Life, Marden.....	(1)			
The Wonderful House that Jack Has, Millard.	(1)			
Black Beauty, Sewall.....	(1)			
Choice Literature, Book 2, Intermediate, Williams.....	(1)			
Hans Brinker, Dodge.....	(1)			
Geographical Reader, North America, Car- penter.....	(1)			
Colette in France, McDonald, school edition..	(1)			
Josefa in Spain, McDonald, school edition..	(1)			
Rafael in Italy, McDonald, school edition..	(1)			
Nature Studies, Higher Grammar Grades, Cummings.....	(1)			
Afoot and Afloat, Burroughs.....	(1)			
Birds and Bees, Burroughs.....	(1)			
Wild Animals I Have Known, Seton-Thomp- son.....	(1)			
The Spring of the Year, Sharp.....	(1)			
Summer, Sharp.....	(1)			

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SCHOOL BOOKS AND SUPPLIES—Continued.

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
MISCELLANEOUS—continued.				
The Fall of the Year, Sharp.....	(1).....	.....	.....	.....
Winter, Sharp.....	(1).....	.....	.....	.....
Getting Acquainted with Trees, McFarland..	(1).....	.....	.....	.....
Along Mediterranean Shores, Willard.....	(1).....	.....	.....	.....
Geography of Commerce and Industry, Rocheleau.....	(1).....	.....	.....	.....
Commercial and Industrial Geography of the United States, Keller & Bishop.....	(1).....	.....	.....	.....
Geographical Reader, Europe, Carpenter.....	(1).....	.....	.....	.....
How the World is Fed, Carpenter.....	(1).....	.....	.....	.....
How the World is Clothed, Carpenter.....	(1).....	.....	.....	.....
How the World is Housed, Carpenter.....	(1).....	.....	.....	.....
Industrial Studies, United States, Allen.....	(1).....	.....	.....	.....
Industrial-Commercial Geography of United States, Rusmisse.....	(1).....	.....	.....	.....
Umé San in Japan, McDonald, school edition..	(1).....	.....	.....	.....
Borris in Russia, McDonald, school edition..	(1).....	.....	.....	.....
Hassan in Egypt, McDonald, school edition..	(1).....	.....	.....	.....
Captains of Industry, Parton:				
Vol. I.....	(1).....	.....	.....	.....
Vol. II.....	(1).....	.....	.....	.....
Four Great American Presidents, No. 1, Perry.....	(1).....	.....	.....	.....
Four Great American Presidents, No. 2, Perry.....	(1).....	.....	.....	.....
The Mohawk Valley and Lake Ontario, Morton.....	(1).....	.....	.....	.....
Lake Huron and the Country of the Algonquins, Morton.....	(1).....	.....	.....	.....
Lake Michigan and the French Explorers, Morton.....	(1).....	.....	.....	.....
Lake Erie and the Story of Commodore Perry, Morton.....	(1).....	.....	.....	.....
Choice Literature, Book 1, Grammar, Williams.....	(1).....	.....	.....	.....
Little Women, Alcott.....	(1).....	.....	.....	.....
Little Men, Alcott.....	(1).....	.....	.....	.....
Mrs. Wiggs of the Cabbage Patch, Hegan-Rice.....	(1).....	.....	.....	.....
Two Arrows, Stoddard.....	(1).....	.....	.....	.....
Joe's Boys, Alcott.....	(1).....	.....	.....	.....
Man Without a Country, Hale.....	(1).....	.....	.....	.....
Robinson Crusoe, De Foe.....	(1).....	.....	.....	.....
Daniel Webster for Young Americans, Richardson.....	(1).....	.....	.....	.....
Tales from Shakespeare, Lamb.....	(1).....	.....	.....	.....
Hero Tales from American History, Lodge and Roosevelt.....	(1).....	.....	.....	.....
The Boy's Parkman, Hasbrouck.....	(1).....	.....	.....	.....
Franklin's Autobiography, edited by D. H. Montgomery.....	(1).....	.....	.....	.....
Indian Child Life, Eastman.....	(1).....	.....	.....	.....
Indian Scout Talks, Eastman.....	(1).....	.....	.....	.....
Indian Sketches, Hulst.....	(1).....	.....	.....	.....
Preparing for Citizenship, Guitteau.....	(1).....	.....	.....	.....
Canning, Preserving, and Jelly Making, Hill.....	(1).....	.....	.....	.....
Domestic Science, Clark.....	(1).....	.....	.....	.....
The School Kitchen Textbook, Lincoln.....	(1).....	.....	.....	.....
Boston Cooking School Cookbook, Farmer.....	(1).....	.....	.....	.....
Dress Making in the School, Cooke & Kidd.....	(1).....	.....	.....	.....
Domestic Science, Principles and Application, Bailey.....	(1).....	.....	.....	.....
Elements of the Theory and Practice of Cookery, Williams & Fisher.....	(1).....	.....	.....	.....
Exercises in Woodworking, Sickels.....	(1).....	.....	.....	.....
Easy Experiments in Physics, Smith.....	(1).....	.....	.....	.....
Educational Manual Training, Schwartz.....	(1).....	.....	.....	.....
Forge Work, Wm. L. Ilgen.....	(1).....	.....	.....	.....
Food and Cookery for the Sick, Farmer.....	(1).....	.....	.....	.....
Food and Household Management, Kinne & Cooley.....	(1).....	.....	.....	.....
Farm Shop Work, Brace & Mayne.....	(1).....	.....	.....	.....
Games, Seat Work, and Sense Training Exercises, Holton.....	(1).....	.....	.....	.....
Manual for Army Cooks.....	(1).....	.....	.....	.....
Handbook of Home Economics, Flagg.....	(1).....	.....	.....	.....

¹ Eliminated for this year.

SCHOOL BOOKS AND SUPPLIES—Continued.

Articles.	Quantity awarded.	Unit price.	No. of con- tractor.	Point of delivery.
MISCELLANEOUS—continued.				
Handbook of Elementary Sewing, Flagg.....	(1).....			
Handbook of Domestic Science and House- hold Art, Ellen H. Richards, edited by Lucy L. W. Wilson.....	(1).....			
How to Make Baskets, Mary White.....	(1).....			
How to Tell Stories to Children, S. C. Bryant.....	(1).....			
Household Science and Arts, Morris.....	(1).....			
General Science, Caldwell-Eikenberry.....	(1).....			
Hygiene of the School Child, Terman.....	(1).....			
Home Nurses' Handbook in Practical Nurs- ing, Aikens.....	(1).....			
Primary Hand Work, Graded Course for First Four Years, W. Seegmiller.....	(1).....			
Primary Manual Work, First and Second Grades, Ledyard.....	(1).....			
Manual of Shoemaking, A. Dooley.....	(1).....			
Morning Exercises for All the Year, J. C. Sin- clair.....	(1).....			
Science of Home Making, Pirie.....	(1).....			
Seat Work and Industrial Occupations for Primary Grades, Mary Gilman, Elizabeth B. Williams.....	(1).....			
Shelter and Clothing, Kinne & Cooley.....	(1).....			
Reference Handbook for Nurses, Beck, 3d ed. King's Series in Woodwork and Carpentry, as follows:	(1).....			
Elements of Woodwork.....	(1).....			
Elements of Construction.....	(1).....			
Constructive Carpentry.....	(1).....			
Inside Finishing.....	(1).....			
Handbook for Teachers.....	(1).....			
Shop Projects, Burton.....	(1).....			
Agriculture:				
Agricultural Engineering, Davidson.....	(1).....			
Animal Husbandry for Schools, Harper.....	(1).....			
Beginnings in Animal Husbandry, Plumb.....	(1).....			
Bird Guide, Land, Reed.....	(1).....			
Bird Guide, Western, Reed.....	(1).....			
Bush Fruits, Card.....	(1).....			
Chemistry, Its Relation to Daily Life, Kahlenberg & Hart.....	(1).....			
Common Diseases of Farm Animals, Craig.....	(1).....			
Dairy Cattle and Milk Production, Eckles.....	(1).....			
Domesticated Animals and Plants, Daven- port.....	(1).....			
Elements of Farm Practice, Wilson.....	(1).....			
Essentials of Agriculture, Waters.....	(1).....			
Farm Animals, Hunt & Burkett.....	(1).....			
Farm Management, Boss.....	(1).....			
Farm Blacksmithing, Drew.....	(1).....			
Farm Machinery and Farm Motors, Davidson & Chase.....	(1).....			
Farm Poultry, Revised Edition, Watson.....	(1).....			
Farmstead, The, Roberts.....	(1).....			
Fertility of the Land, Roberts.....	(1).....			
First Principles of Feeding Farm An- imals, Burkett.....	(1).....			
First Lessons in Dairying, Van Norman.....	(1).....			
First Book of Farming, Goodrich.....	(1).....			
Feeds and Feeding, Henry & Morrison.....	(1).....			
Fertilizers Woorhees.....	(1).....			
Forcing Book, The, Bailey.....	(1).....			
How to Grow Vegetables, French.....	(1).....			
How to Keep Bees, Comstock.....	(1).....			
Horticulturist's Rule Book, Bailey.....	(1).....			
Introduction to Agriculture, Upham.....	(1).....			
Irrigation and Drainage, King.....	(1).....			
Milk and its Products, Wing.....	(1).....			
Nature Study and Life, Hodge.....	(1).....			
Nature Study with Common Things, Carter.....	(1).....			
Nursery Book, The, Bailey.....	(1).....			
Plant Breeding, Bailey.....	(1).....			
Poultry Diseases, Wortley.....	(1).....			

¹ Eliminated for this year.

SCHOOL BOOKS AND SUPPLIES—Continued.

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
MISCELLANEOUS—continued.				
Domesticated Animals and Plants, Davenport—Continued.				
Poultry Keeping, Lewis.....	(1).....	.....	.....
Productive Horse Husbandry, Gay.....	(1).....	.....	.....
Principles and Practice of Poultry Culture, Robinson.....	(1).....	.....	.....
Principles of Rural Economics, Carver.....	(1).....	.....	.....
Principles of Agriculture, Bailey.....	(1).....	.....	.....
Principles of Fruit Growing, Bailey.....	(1).....	.....	.....
Productive Feeding of Farm Animals, Woll.....	(1).....	.....	.....
Productive Poultry, Husbandry, Lewis.....	(1).....	.....	.....
Productive Swine Husbandry, Day.....	(1).....	.....	.....
Productive Orcharding, Sears.....	(1).....	.....	.....
Pruning Book, The, Bailey.....	(1).....	.....	.....
Rural School Agriculture, Davis.....	(1).....	.....	.....
Rural Wealth and Welfare, Fairchild.....	(1).....	.....	.....
School and Home Gardens, Meler.....	(1).....	.....	.....
Sheep Farming, Craig.....	(1).....	.....	.....
Sixty Lessons in Agriculture, Buffum & Deaver.....	(1).....	.....	.....
Soils and Crops, Hunt & Burkett.....	(1).....	.....	.....
Soil, The, King.....	(1).....	.....	.....
Spraying of Plants, Lodeman.....	(1).....	.....	.....
Young Farmer, The, Hunt.....	(1).....	.....	.....
Vegetable Gardening, Watts.....	(1).....	.....	.....
Bee Book.....	12.....	\$0.40	2	Chicago.
Berry Book.....	17.....	.40	2	Do.
Cow Book.....	23.....	.40	2	Do.
Garden Book.....	20.....	.40	2	Do.
Horse Book.....	20.....	.40	2	Do.
Orchard Book.....	11.....	.40	2	Do.
Pet Book.....	11.....	.40	2	Do.
Poultry Book.....	20.....	.40	2	Do.
Sheep Book.....	11.....	.40	2	Do.
Swine Book.....	23.....	.40	2	Do.
All the Children of All the People, Smith.....	(1).....	.....	.....
Blackboard Reading, Moore.....	(1).....	.....	.....
Everyday Problems in Teaching, O'Shea.....	(1).....	.....	.....
Child, The, Tanner.....	(1).....	.....	.....
Education by Plays and Games, Johnson.....	(1).....	.....	.....
Education, Thorndike.....	(1).....	.....	.....
For the Story Teller, Bailey.....	(1).....	.....	.....
For the Children's Hour, Bailey.....	(1).....	.....	.....
Great American Educators, Winslip.....	(1).....	.....	.....
Handbook on Vocational Education, Taylor.....	(1).....	.....	.....
History of Education, Seeley.....	(1).....	.....	.....
How to Teach Reading, Arnold.....	(1).....	.....	.....
How to Study, McMurray.....	(1).....	.....	.....
How We Think, Dewey.....	(1).....	.....	.....
In the Child's World, Poulsen.....	(1).....	.....	.....
Language Games for All Grades, Deming.....	(1).....	.....	.....
Recitation, The, Hamilton.....	(1).....	.....	.....
Songs, Games, and Rhymes, Hallman.....	(1).....	.....	.....
Stories Children Need, Bailey.....	(1).....	.....	.....
Stars and Stripes, Stewart.....	(1).....	.....	.....
Teaching to Read, Turner.....	(1).....	.....	.....
Training of Children, The, Dinsmore.....	(1).....	.....	.....
Thinking and Learning to Think, Schaeffer.....	(1).....	.....	.....
Profitable Vocations for Boys, Weaver.....	(1).....	.....	.....
Vocations for Girls, Laselle & Wiley.....	(1).....	.....	.....
Vocations for Girls, Weaver.....	(1).....	.....	.....
Vocational Education, Gillette.....	(1).....	.....	.....
Riverside Educational Monographs, as follows:	(1).....	.....	.....
The Problem of Vocational Education, Snedden.....	(1).....	.....	.....
Education for Efficiency, Eliot.....	(1).....	.....	.....
The Meaning of Infancy, Fiske.....	(1).....	.....	.....
Moral Principles in Education, Dewey.....	(1).....	.....	.....
Changing Conceptions of Education, Cumberly.....	(1).....	.....	.....
Course in Citizenship, Cabot, Andrews, and others.....	(1).....	.....	.....
Ethics for Children, Cabot.....	(1).....	.....	.....

1 Eliminated for this year.

SCHOOL BOOKS AND SUPPLIES—Continued.

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
MISCELLANEOUS—continued.				
Ethics for Young People, Everett.....	(1).....			
Good Stories for Great Holidays, Olcott.....	(1).....			
Moral Training in School and Home, Sneath & Hodges.....	(1).....			
Vocational and Moral Guidance, Davis.....	(1).....			
What a Young Boy Ought to Know, Stall.....	(1).....			
What a Young Man Ought to Know, Stall.....	(1).....			
What a Young Girl Ought to Know, Allen.....	(1).....			
What a Young Woman Ought to Know, Allen.....	(1).....			
Young Folks Book of Etiquette (for pupils also), Griffin.....	(1).....			
Boy Scouts of America, Handbook.....	(1).....			
Campfire Girls of America, Handbook.....	(1).....			
Systematic Moral Education, Clark.....	(1).....			
Free Gymnastics, Bets.....	(1).....			
Light Gymnastics, Bets.....	(1).....			
Games for the Playground, Home, School, and Gymnasium, Bancroft.....	(1).....			
Graded Games and Rhythmic Exercises, Newton.....	(1).....			
Rhythmic Action Plays and Dances, Moses.....	(1).....			
Gymnastics, Stories and Plays, Stonerod.....	(1).....			
Right Dress, Reilly.....	(1).....			
Manual of Calisthenics and Setting-up Exercises, Army.....	(1).....			
Manual of Physical Training, Keene.....	(1).....			
Blackboard erasers, noiseless and dustless.....	3,035.....	\$0.055	45	Chicago.
Blackboard hyloplate, green, 3 by 5, best quality.....	122.....	1.585	19	Do.
Bibles, medium size:				
Revised version.....	130.....	.35	191	Do.
King James version.....	74.....	.35	191	Do.
Complete outfit of repairing material (for repairing music, drawings, or any printed matter).....	No award.....			
Call bells.....	82.....	.115	19	Do.
Crayons, chalk:				
White, dustless.....	1,485 boxes.....	.19	249	Danvers, Mass.
Colored, assorted.....	271 boxes.....	1.10	153	Chicago.
Composition books, for ink.....	16,627.....	.0535	78	Do.
Eye cards, for illiterates.....	No award.....			
Educational toy money.....	142 sets.....	.20	27	New York or Chicago.
Geometrical surfaces and solids for school-room use.....	21.....	.85	27	Do.
Rubber printing outfit. Height of letters, etc., 1/4 inches. The outfit to consist of capitals and small letters, one set of figures, fractions, ornaments, punctuation marks, and miscellaneous characters; also a self-linking pad, a tube of black ink, and a ruler and spacer. The outfit to be packed in a strong, varnished wooden box.....	26 boxes.....	1.50	2	Chicago.
Cabinet of weights and measures, with lock.....	(1).....			
Globes of the world:				
18 inches in diameter.....	(1).....			
12 inches in diameter.....	(1).....			
8 inches in diameter, papier-mâché.....	(1).....			
Kindergarten scissors, blunt points.....	130 pairs.....	.046	80	D.
Maps, wall; size approximately 52 by 48 inches, hand-mounted, on best muslin, with or without dust-proof portable spring roller board or case:				
Arizona.....	(1).....			
California.....	(1).....			
Colorado.....	(1).....			
Idaho.....	(1).....			
Kansas.....	(1).....			
Michigan.....	(1).....			
Minnesota.....	(1).....			
Montana.....	(1).....			
Nebraska.....	(1).....			

¹ Eliminated for this year.

SCHOOL BOOKS AND SUPPLIES—Continued.

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
MISCELLANEOUS—continued.				
Maps, wall—Continued.				
Nevada.....	(1)			
New Mexico.....	(1)			
North Dakota.....	(1)			
Oklahoma.....	(1)			
Oregon.....	(1)			
Pennsylvania.....	(1)			
South Dakota.....	(1)			
United States, large.....	(1)			
Utah.....	(1)			
Washington.....	(1)			
Wisconsin.....	(1)			
Wyoming.....	(1)			
Europe.....	(1)			
Asia.....	(1)			
Africa.....	(1)			
Australia.....	(1)			
North America.....	(1)			
South America.....	(1)			
Individual outline maps, 9½ by 11½ inches (in pads of 50), as follows:				
North America.....	98 pads.....	\$0.20	27	New York or Chicago.
South America.....	79 pads.....	.20	27	Do.
Europe.....	67 pads.....	.20	27	Do.
Australia.....	41 pads.....	.20	27	Do.
Asia.....	48 pads.....	.20	27	Do.
Africa.....	48 pads.....	.20	27	Do.
United States.....	160 pads.....	.20	27	Do.
United States, sectional:				
Section 1. North Atlantic States.....	(1)			
Section 2. South Atlantic States.....	(1)			
Section 3. North Central States.....	(1)			
Section 4. South Central States.....	(1)			
Section 5. Western States.....	(1)			
Blackboard outline maps, United States, 78 by 50 inches, Engle or equal.....	12.....	2.00	191	Chicago.
New Testament, medium size, revised version.....	100.....	.14	191	Do.
Pencil sharpeners, lead.....	167.....	.75	33	St. Louis.
Pencil erasers.....	370 dozen.....	.23	115	Chicago or St. Louis.
Plaster of Paris, in 5 and 10 pound cans.....	No award.....			
Newspaper stock, 5 by 7 inches.....	3,475 pounds.....	.0589	307	San Francisco.
Practice paper, Spencerian (per 100 sheets):				
Small.....	226,700 sheets.....	.07½	23	St. Louis or Chicago.
Large.....	202,900 sheets.....	.10	199	(2).
Rules, wood, 12-inch.....	180 dozen.....	.07	19	Chicago.
Perry Pictures, 22 by 28 inches:				
Angel heads, Reynolds.....	(1)			
A June Morning, Loveridge.....	(1)			
An Old Monarch, Rosa Bonheur.....	(1)			
Cattle of Brittany, Rosa Bonheur.....	(1)			
Calling the Ferryman, Ridgeway Knight.....	(1)			
Leaving the Hills, Farquharson.....	(1)			
Children of Charles I, Van Dyck.....	(1)			
Under the Elms, C. Loveridge.....	(1)			
An Off Shore Breeze, Rose.....	(1)			
Forest Pool, B. Lambert:				
Evening's Cooling Shades, Chwala.....	(1)			
Queen Louise, Richter.....	(1)			
Ann Hathaway's Cottage, U. Ball.....	(1)			
Hosea, Sargeant.....	(1)			
Grand Canal.....	(1)			
Princes in the Tower, Mills.....	(1)			
On the Prairie, Dupré.....	(1)			
Pharaoh's Horses, Herring.....	(1)			
Return to the Farm, Troyen.....	(1)			
Sir Galahad, Watts.....	(1)			
Stag at Bay, Landseer.....	(1)			
Saint Cecilia, Narijok.....	(1)			
The Gleaners, Millet.....	(1)			
The Sanctuary, Landseer.....	(1)			
The Shepherdess, Lerolle.....	(1)			

1 Eliminated for this year.

2 Only.

3 Cedar Rapids, New York, Chicago, Boston, Philadelphia.

SCHOOL BOOKS AND SUPPLIES—Continued.

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
MISCELLANEOUS—continued.				
Portraits:				
Bryant, Wm. Cullen.....	(1).....			
Franklin, Benjamin.....	(1).....			
Garfield, James A.....	(1).....			
Handel.....	(1).....			
Holmes, Oliver W.....	(1).....			
Jefferson, Thomas.....	(1).....			
Lafayette, General.....	(1).....			
Lee, Robert E.....	(1).....			
Lincoln, Abraham.....	(1).....			
Longfellow, Henry W.....	(1).....			
Mendelssohn.....	(1).....			
Shakespeare.....	(1).....			
Schubert.....	(1).....			
Washington, General George.....	(1).....			
Washington, Martha.....	(1).....			
Webster, Daniel.....	(1).....			
Whittier, John G.....	(1).....			
Registers, Union No. 2, common school.....	229.....	\$0.38	2	Chicago.

¹ Eliminated for this year.

KINDERGARTEN MATERIAL.

[Bids opened in Chicago May 2, 1917.]

Articles.	Catalogue No.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
First gift.....	1	5 boxes.....	\$1.12	27	New York or Chicago.
Second gift.....	2	25 boxes.....	.56	27	Do.
Third gift.....	3	89 boxes.....	.19	27	Do.
Fourth gift.....	4	48 boxes.....	.19	27	Do.
Fifth gift.....	5	34 boxes.....	.38	27	Do.
Sixth gift.....	6	14 boxes.....	.38	27	Do.
Seventh gift, as follows:					
Tablets (wood)—					
A.....	22	8 boxes.....	.45	27	Do.
B.....	22	7 boxes.....	.45	27	Do.
C.....	22	do.....	.45	27	Do.
D.....	22	5 boxes.....	.45	27	Do.
E.....	22	do.....	.45	27	Do.
G.....	22	do.....	.45	27	Do.
H.....	22	7 boxes.....	.45	27	Do.
K.....	22	4 boxes.....	.80	27	Do.
PARQUETRY.					
Assortment No. 6A.....	2000	21 boxes.....	.15	27	Do.
Do.....	2003	28 boxes.....	.40	27	Do.
Circles:					
R.....	2151	72 packages.....	.06	27	Do.
O.....	2151	59 packages.....	.06	27	Do.
Y.....	2151	53 packages.....	.06	27	Do.
G.....	2151	69 packages.....	.06	27	Do.
B.....	2151	56 packages.....	.06	27	Do.
V.....	2151	51 packages.....	.06	27	Do.
Squares:					
R.....	2151	61 packages.....	.06	27	Do.
O.....	2151	63 packages.....	.06	27	Do.
Y.....	2151	do.....	.06	27	Do.
G.....	2151	do.....	.06	27	Do.
B.....	2151	57 packages.....	.06	27	Do.
V.....	2151	52 packages.....	.06	27	Do.
Equilateral triangles:					
R.....	2151	44 packages.....	.06	27	Do.
O.....	2151	42 packages.....	.06	27	Do.
Y.....	2151	30 packages.....	.06	27	Do.
G.....	2151	35 packages.....	.06	27	Do.
B.....	2151	do.....	.06	27	Do.
V.....	2151	34 packages.....	.06	27	Do.

KINDERGARTEN MATERIAL—Continued.

Articles.	Catalogue No.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
PAPER FOR STRINGING.					
R.....	2144R	80 packages...	\$0.12	27	New York or Chicago.
O.....	2144O	45 packages...	.12	27	Do.
G.....	2144G	93 packages...	.12	27	Do.
B.....	2144B	56 packages...	.12	27	Do.
R, W, B, assorted.....	2144D	225 packages...	.12	27	Do.
SEWING CARDS.					
Cards, 5½ by 5½:					
Sistine Madonna, plain ribbon.....	193-E-1	745.....	.01	27	Do.
Washington.....	193-E-9	1,159.....	.01	27	Do.
Lincoln.....	193-E-10	1,486.....	.01	27	Do.
Valentine.....	193-E-14	1,365.....	.01	27	Do.
Easter.....	193-D-807	1,771.....	.01	27	Do.
Puritans Going to Church.....	193-E-23	934.....	.01	27	Do.
Blank sewing cards:					
4 by 5½.....		158 packages...	.18	27	Do.
5 by 8.....		226 packages...	.18	27	Do.
WEAVING.					
Schute weaving cards:					
4-inch disk.....		23 dozen.....	.12	27	Do.
6-inch disk.....		42, "dozen.....	.19	27	Do.
Bodkins for Schute weaving cards.....		No award.....			
R mats, 7 by 7, slits ½ by ½, alternating.....	1029-R	60 packages...	.12	27	Do.
O mats, 7 by 7, slits ½ by ½, alternating.....	1029-O	61 packages...	.12	27	Do.
R, O, Y, G, B, V, 7 by 7, tints and shades and grays.....	1030	185 packages...	.12	27	Do.
R, O, Y, G, B, V, 4½ by 4½, tints and shades and grays.....	1110	107 packages...	.08	27	Do.
R, O, Y, G, B, V, ½ by ½ slits, alternating.....	1140	112 packages...	.08	27	Do.
Weaving needles, Ball's patent.....		416.....	.04	27	Do.
MRS. HALLMAN'S GRADED MATS.					
4 by 4, with 6 strips.....	1201	59 packages...	.16	27	New York or Chicago.
4 by 4, with 10 strips.....	1205	62 packages...	.16	27	Do.
PAPER CUTTING.					
Squares, 4 by 4:					
White.....	209	87 packages...	.06	27	New York or Chicago.
Red, tints and shades.....	211-R	135 packages...	.12	27	Do.
Orange.....	211-O	48 packages...	.12	27	Do.
Assorted colors.....	211-H	295 packages...	.009	19	Chicago.
Equi. Tri., 4 by 4:					
Coated, assortment A.....	212-X	43 packages...	.18	27	New York or Chicago.
Green, tints and shades.....	212-G	28 packages...	.18	27	Do.
Circles, 4 by 4:					
Coated, assortment A.....	213-X	81 packages...	.18	27	Do.
Red, tints and shades.....	213-R	48 packages...	.18	27	Do.
CLAY MODELING.					
New process clay flour.....	457	348 pounds...	1.11	80	Chicago.
Modeling tools:					
Figure 1.....	454	14, "dozen.....	.19	27	New York or Chicago.
Figure 2.....	454	11 dozen.....	.19	27	Do.
Modeling boards:					
No. 1, 7 by 9.....	455	(*).....			
No. 2, 9 by 12.....	455	(*).....			
RINGS FOR RING LAYING.					
500 rings, gummed, 1-inch, in 6 shades and colors.....	112	39 packages...	.35	27	New York or Chicago.
500 rings, gummed, 1½-inch, 6 colors, tints and shades.....	112	No award.....			
500 rings, 2-inch, 6 colors, tints and shades.....	112	do.....			
Soldered rings, 1, 1½, and 2 inch.....	110	7 boxes.....	.49	27	Do.

* Per box of 5 pounds.

* Eliminated for this year.

KINDERGARTEN MATERIAL—Continued.

Articles.	Catalogue No.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
WORSTED AND SILKATEEN.					
Assorted colors, silkateen.....	195A	254 boxes ¹	\$0.468	115	St. Louis.
Germentown worsted of R, O, Y, G, B, V, black, white, light-brown, gray 1, and gray 2.	198A	512 laps.....	.10	80	Chicago.
MISCELLANEOUS.					
Needles, Nos. 18, 20, 23, and 25.....	199	173 papers.....	.05	27	New York or Chicago.
Needles, perforating:					
Medium.....	171	18 dozen.....	.26	27	Do.
Coarse.....	171A	34 dozen.....	.30	27	Do.
Pricking cushions.....	173	9 dozen.....	.90	27	Do.
Hooks, to suspend drawings, etc.....	37	30 gross.....	.80	27	Do.
Studio paper cutter, 10-inch blade.....	4259	(*).....			
Yardsticks.....		108.....	.048	80	Chicago.
Educational clock dial, 12-inch.....		42.....	.145	19	Do.
Sectional animals (in box).....	4193	214 sets.....	.065	19	Do.
Sectional birds (in box).....	4194	186 sets.....	.065	19	Do.
Dissected map of United States, 15 by 22, in wood.....	4264	25.....	.35	27	New York or Chicago.
Ludington's Picture Problems:					
Part 1.....		86 sets.....	.20	27	Do.
Part 2.....		do.....	.20	27	Do.
Primary peg boards, square form.....		10 dozen.....	1.10	27	Do.
Round pegs, 6 colors.....		92 boxes.....	.18	27	Do.
Dushane's figure cards.....		31 sets.....	.20	27	Do.
BOOKS.					
Kindergarten Chimes, Kate Douglas Wiggin.....		No award.....			
Songs and Games for Little Ones, Harriet S. Jenks and Gertrude Walker.....		(*).....			
Finger Plays, Emilie Poulson.....		(*).....			
Bradley's tinted drawing, construction, and mounting papers, 12 by 18, in packages of 50 sheets, as follows:					
No. 1, light brown.....		166 packages.....	.20	80	Chicago.
No. 4, gray-blue.....		93 packages.....	.20	80	Do.
No. 7, light gray.....		132 packages.....	.20	80	Do.
No. 8, blue.....		87 packages.....	.34	80	Do.
No. 12, green.....		121 packages.....	.36	80	Do.
No. 14, red.....		96 packages.....	.48	27	New York or Chicago.
No. 20, gray.....		152 packages.....	.20	80	Chicago.
RULED DRAWING PAPER.					
25 sheets, 17 by 22:					
$\frac{1}{2}$ -inch squares.....	134	199 packages.....	.30	27	New York or Chicago.
1-inch squares.....	136A	106 packages.....	.30	27	Do.
UNRULED MOUNTING SHEETS.					
12 leaves, 7 by 7, white Bristol.....	76	399 packages.....	.08	27	New York or Chicago.
STRAWS AND STRINGING.					
Straws, $\frac{1}{2}$ inch long:					
Waxed.....	463B	35 thousand.....	.19	27	New York or Chicago.
6 colors.....	463C	39 thousand.....	.26	27	Do.
GUMMED PAPER DOTS.					
Squares, in envelope, 6 colors.....	459	26 thousand.....	.12	27	New York or Chicago.
Circles, in envelope, 6 colors.....	459A	30 thousand.....	.12	27	Do.
Silver stars.....	459C	367 hundred.....	.044	19	Chicago.
United States flag.....	459E	329 hundred.....	.056	19	Do.

¹ 1 dozen colors in a box.² Eliminated for this year.

KINDERGARTEN MATERIAL—Continued.

Articles.	Catalogue No.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery
STICKS.					
5 inches, plain sticks.....	90	28 thousand...	\$0.15	27	New York or Chicago.
3 inches, plain sticks.....	92	18 thousand...	.11	27	Do.
6 colors, from 1 to 5 inches in length...	103	54 boxes.....	.55	27	Do.
Round shoe laces, black.....	471	25 dozen.....	.10	27	Do.
PAPER STRIPS FOR LACING.					
$\frac{1}{2}$ inch wide, 6 colors.....	430A	110 packages..	.08	27	New York or Chicago.
1 inch wide, 6 colors.....	431A	62 packages..	.11	27	Do.
$\frac{1}{2}$ inch wide, R, W, B.....	434A	26 packages..	.11	27	Do.
DISCONNECTED SLATS.					
Slats, 10 inches long: 6 colors.....	413	14 hundred....	.18	27	New York or Chicago.
Plain.....	411	3 hundred.....	.11	27	Do.
JOINTED SLATS.					
Of 8 links.....	422	9 sets.....	.12	27	New York or Chicago.
Of 10 links, extra heavy.....	425	17 sets.....	.18	27	Do.
Of 16 links, extra heavy.....	424	15 sets.....	.25	27	Do.

SCHOOL DESKS.

[Bids opened in Chicago May 2, 1917.]

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
Desks, school, with seats, single:				
No. 1, for scholars 18 to 21 years old.....	87.....	\$2.40	205	North Manchester, Ind.
No. 2, for scholars 15 to 18 years old.....	24.....	2.40	205	Do.
No. 3, for scholars 13 to 15 years old.....	56.....	2.10	205	Do.
No. 4, for scholars 11 to 13 years old.....	62.....	2.10	205	Do.
No. 5, for scholars 8 to 11 years old.....	75.....	1.80	205	Do.
No. 6, for scholars 5 to 7 years old.....	34.....	1.80	205	Do.
Desks, school, back seats for, single:				
No. 1.....	11.....	1.60	205	Do.
No. 2.....	4.....	1.60	205	Do.
No. 3.....	11.....	1.60	205	Do.
No. 4.....	14.....	1.60	205	Do.
No. 5.....	11.....	1.60	205	Do.
Desks, school, single, adjustable:				
Large; cover 1 to 3 regular desks.....	56.....	4.00	7	Grand Rapids, Mich.
Medium; cover 3 to 5 regular desks.....	61.....	3.85	7	Do.
Small; cover 4 to 6 regular desks.....	37.....	3.65	7	Do.
Desks and chairs, steel, adjustable, single:				
1 or A, for scholars 10 years up.....	140.....	5.75	7	Do.
3 or B, for scholars 6 to 11 years.....	40.....	5.10	7	Do.
5 or C, for scholars 4 to 7 years.....	10.....	4.60	7	Do.

MISCELLANEOUS AUTOMOBILE SUPPLIES.

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
Tire chains:				
30 by 3.....	75 pairs ¹	\$3.00	33	St. Louis.
30 by 3½.....		3.34		
30 by 3½.....	12 pairs ¹	3.33	90	Pierre, S. Dak.
Spark plugs.....		.315	106½	Chicago.
Inner tubes:				
If 30 by 3.....	732 ¹	\$ 2.71	90	Pierre, S. Dak.
	183.....	2.14	79	()
If 30 by 3½.....	733 ¹	3.28	90	Pierre, S. Dak.
	225.....	2.66	79	()
If 32 by 2½.....	34.....	2.80	79	()
If 24 by 2½.....	None.....	3.33	79	()
If 24 by 4.....	60.....	3.75	79	()
If 36 by 4½.....	None.....	4.85	79	()
Casings:				
If 30 by 3.....	726 ¹	\$ 11.83	90	Pierre, S. Dak.
	161.....	12.02	96	()
If 30 by 3½.....	726 ¹	15.10	90	Pierre, S. Dak.
	211.....	15.35	96	()
If 32 by 2½.....	14.....	17.91	96	()
If 24 by 3½.....	4.....	20.33	96	()
If 24 by 4.....	50.....	25.17	96	()
If 36 by 4½.....	4.....	39.91	96	()

ELECTRICAL SUPPLIES.

[Bids opened in St. Louis May 25, 1917.]

Wire, rubber-covered, double-braided, solid: No. 14 (submit sample.....	11,520 feet ¹	\$0.0127	286	St. Louis.
Wire, rubber-covered, for fixtures, light; No. 18.....	4,400 feet ¹.....	.00521	286	Do.
Sockets, Edison key, ½-inch cap.....	477 ¹.....	.2115	286	Do.
Sockets, Edison key, ¾-inch cap.....	255 ¹.....	.2495	286	Do.
Sockets, Edison keyless, ½-inch cap.....	114 ¹.....	.1925	286	Do.
Sockets, Edison keyless, ¾-inch cap.....	48 ¹.....	.23	153	Chicago.
Receptacles, separate bowl, attachment plug, Edison base.....	218 ¹.....	.45	286	St. Louis.
Batteries, dry; good quality, round, 2½ inches by 6 inches.....	2,057 ¹.....	.22	189	St. Paul.
Cord, flexible, electric lamp and heater; cotton covered, twisted pair; No. 16.....	8,350 f.....	.02585	189	Do.

¹ Only.

² Firestone.

³ Fisk.

⁴ New York, Chicago, St. Louis, Omaha, Kansas City, St. Paul, San Francisco, Los Angeles, Portland, or Seattle.

⁵ Regular clincher, nonskid.

⁶ Clincher only.

⁷ Clincher or straight side.

⁸ Q. D. clincher or straight side.

MISCELLANEOUS SUPPLIES.

Articles.	Bids opened in San Francisco Apr. 2, 1917.				Bids opened in St. Louis May 25, 1917.			
	Quantity awarded.	Unit price.	No. of con- tractor.	Point of delivery.	Quantity awarded.	Unit price.	No. of con- tractor.	Point of delivery.
Galvanized steel barrels, 55 gallons capacity, with the words "Indian Service" embossed thereon, and also the word "Gasoline" or "Kerosene," as the service may require.					211 1.....	\$10.00	52	Chicago.
Carbide (or carbolite), in iron drums.....	80½ tons.....	\$57.00	6	Duluth, Minn.....	37½ tons.....	70.00 75.00 77.00 81.00 85.00 85.00	273 273 273 273 273 273	(1) Oklahoma City. El Paso Denver Salt Lake City. Duluth. Minneapolis. Chicago.
					52½ tons.....	70.00 72.50 75.00	6 6 6	
	27.....	9.45	216	(1).....	94 1.....	8.90	173	St. Louis.
	No award.....				63.....	5.00	216	Do.
	do.....				27 gallons.....	4.00	216	Do.
Fire extinguishers, chemical: Inverted type, soda and acid, 2½ to 3 gallons capacity. "Squirt-gun" type, about 1 quart capacity, charged with liquid chemicals and ready for immediate use. Fluid, chemical (carbon tetrachloride base), for recharging the 1-quart fire extinguishers. Billies, black leather, shot-loaded, leather loop and button; medium weight. Handcuffs, steel, self-locking, adjustable.....	do.....				9 1.....	.65	153	Chicago.
	20 pairs.....	5.75	207	(1).....	No award.....			(See Appendix).

1 Only.

2 Embossed as specified, if ordered at one time, or in lots of 25 or more; lots of 10 to 24, 25 cents extra; lots of 5 to 9, 50 cents extra; lots of 1 to 4, \$2.50 extra.

3 San Francisco, Los Angeles, Seattle, Kansas City, St. Paul, or New York.

4 Any place in United States reached by parcel post or express.

5 Chicago, Minneapolis, East St. Louis, Fargo, Sioux City, Omaha, St. Joseph, Kansas City.

6 Omaha, St. Louis, Kansas City, St. Joseph.

Contracts awarded for beef, pork, and mutton for the Indian Service for the fiscal year ending June, 30, 1918.

BEEF, NET.

Agency or school.	Quantity awarded.	Price per hundred-weight.	No. of contractor.	Point of delivery.
	<i>Pounds.</i>			
Albuquerque, N. Mex.	85,000	\$11.50	300	At school.
Canton Asylum, South Dakota.	5,000	14.48	263	At Canton, S. Dak. ¹
Carlisle School, Pennsylvania.	20,000	14.98	263	At Gettysburg Junction, Pa. ¹
Carson School and Hospital, Nevada.	30,000	12.50	128	At Carson, Nev.
Cherokee School, Oklahoma.	2,500	14.62	263	At Park Hill, Okla.
Chilocco School, Oklahoma.	100,000	13.84	170	At school.
Digger Agency, Cal.	2,000	12.00	265	At agency.
Flandreau School, etc., South Dakota.	10,000	14.67	263	At Flandreau, S. Dak. ¹
Fon du Lac Hospital, Minnesota.	4,000	{ \$16.00 \$15.00 }	233	At school.
Fort Bidwell School, California.	10,000	12.35	10	Do.
Fort Mall School, etc., Idaho.	110,000	\$11.50	120	At agency.
Genoa School, Nebraska.	65,000	13.95	306	At school.
Greenville School, California.	14,000	13.50	186	Do.
Haskell Institute, Kansas.	15,000	13.61	263	At Lawrence, Kans. ¹
Hayward School, Wisconsin.	7,000	13.42	263	At Hayward, Wis. ¹
Hoopa Valley School, California.	20,000	13.25	188	At Korb, Cal.
Jicarilla School, New Mexico.	17,000	\$15.50	190	At Dulce, N. Mex.
Kiowa-Riverside School, Oklahoma.	24,000	12.00	105	At school.
Kiowa-Anadarko School, Oklahoma.	15,000	12.00	105	Do.
Kiowa-Fort Sill School, Oklahoma.	29,000	11.50	179	At Lawton, Okla.
Mescalero Agency, etc., New Mexico.	60,000	13.98	280	At agency.
Nevada School, Nevada.	12,540	12.75	128	At Numana, Nev.
Oneida School, Wisconsin.	16,000	10.50	48	At Oneida, Wis.
Pawnee School, Oklahoma.	10,000	13.50	262	At school.
Phoenix School, etc., Arizona.	128,700	10.45	269	Do.
Pierre School, South Dakota.	2,000	14.87	263	At Pierre, S. Dak. ¹
Pueblo Bonito School, etc., New Mexico.	17,000	12.50	26	At school.
Pipestone School, Minnesota.	3,000	13.48	263	At Pipestone, Minn. ¹
Salem School, Oregon.	99,000	12.40	61	At school.
Santa Fe School, New Mexico.	50,000	11.90	75	Do.
Santee Agency, Nebr.	1,200	15.00	212	Do.
Shawnee School, Oklahoma.	14,000	13.50	192	Do.
Sherman Institute, California.	124,000	12.70	88	Do.
Sisseton School, South Dakota.	20,000	13.50	171	At Sisseton, S. Dak.
Spokane Hospital, Washington.	2,750	14.22	42	At Reardan, Wash.
Tomah School, Wisconsin.	2,000	13.50	263	At Tomah, Wis. ¹
Tulalip School, Washington.	29,000	14.45	84	At Tulalip, Wash.
Turtle Mountain Day Schools, North Dakota.	1,300	14.00	160	At Rolla, N. Dak.
Umatilla School, Oregon.	9,000	12.38	39	At Mission station, Oreg.
Walker River School, Nevada.	5,600	14.00	128	At Schurz, Nev.
Zuni School, New Mexico.	18,500	13.50	129	At Blackrock, N. Mex.

BEEF, GROSS.

Cheyenne River Agency, etc., South Dakota.	60,000	\$7.95	261	At agency.
Fort Belknap Agency, Montana.	55,000	8.15	148	Do.
Jicarilla Agency, etc., New Mexico.	120,000	8.50	111	At Dulce, N. Mex.

FRESH PORK.

Red Lake Hospital, Minnesota.	500	\$16.00	30	At school.
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MUTTON.

Pueblo Bonito School, New Mexico.	12,000	\$12.50	26	At school.
Red Lake Hospital, Minnesota.	500	16.00	30	Do.
Zuni School, New Mexico.	1,500	15.00	129	At Blackrock, N. Mex.

¹ Delivery during July, August, and September, 1917.

² For hind quarters.

³ For front quarters.

⁴ Cow beef.

APPENDIX—READVERTISEMENT.

Contracts awarded at St. Louis, Mo., under advertisement dated July 10, 1917.

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
DRY GOODS.				
Silesia, black and slate, 36 inches wide.....	5,575 yards.....	\$0. 15	125	New York.
GLOVES.				
Gloves, buck, horsehide, mule skin, or pigskin:				
Boys', lined.....	849 pairs.....	.42½	41	Chicago or St. Louis.
Boys', unlined.....	607 pairs.....	.35	24	San Francisco.
Men's, lined.....	1,908 pairs.....	.40½	41	Chicago or St. Louis.
Men's, unlined.....	1,174 pairs.....	.375	24	San Francisco.
NOTIONS.				
Brushes, tooth, (with holes in handles), for adults:				
No. 2248.....	100 dozen.....	1.30	78	Chicago.
No. 2349.....	do.....	1.70	78	Do.
No. 2677.....	do.....	1.55	78	Do.
No. 2138.....	do.....	1.25	78	Do.
No. 2244.....	16 dozen.....	1.75	78	Do.
No. 2249.....	75 dozen.....	1.25	78	Do.
No. 2343.....	100 dozen.....	1.70	78	Do.
No. 2347.....	do.....	1.30	78	Do.
No. 2134.....	do.....	1.20	78	Do.
No. 2280.....	75 dozen.....	1.20	78	Do.
No. 2295.....	70 dozen.....	1.25	78	Do.
No. 2140.....	60 dozen.....	1.25	78	Do.
No. 2232.....	50 dozen.....	1.30	78	Do.
No. 2234.....	do.....	1.55	78	Do.
No. 2162.....	60 dozen.....	1.55	78	Do.
No. 2145.....	90 dozen.....	1.55	78	Do.
No. 2225.....	75 dozen.....	1.55	78	Do.
No. 2143.....	75 dozen.....	1.55	78	Do.
No. 2104.....	72 dozen.....	1.70	78	Do.
Brushes, tooth (with holes in handles), for children:				
No. 2203.....	100 dozen.....	.925	78	Do.
No. 2376.....	290 dozen.....	.80	78	Do.
No. 2801.....	150 dozen.....	.80	78	Do.
No. 2804.....	385 dozen.....	.80	78	Do.
No. 2808.....	200 dozen.....	.925	78	Do.
No. 2196.....	100 dozen.....	.80	78	Do.
No. 2262.....	200 dozen.....	.80	78	Do.
No. 2800.....	175 dozen.....	.925	78	Do.
No. 2809.....	100 dozen.....	.80	78	Do.
No. 2176.....	60 dozen.....	.75	78	Do.
No. 2198.....	95 dozen.....	.925	78	Do.
Laces, shoe, leather, 36 inches.....	12 gross.....	2.50	73	St. Louis.
Paper holders, toilet.....	500 ¹.....	.03	41	Chicago or St. Louis.
Pins, hat, girls', steel, about 7½ inches.....	125 gross.....	1.15	73	St. Louis.
Thumbles, steel or aluminum:				
Closed.....	510 dozen.....	.12	115	Do.
Open.....	50 dozen.....	.12	115	Do.
HATS.				
Hats, soft, military style, tan color:				
Boys'.....	3,650.....	1.45	100	New York.
Men's.....	3,689.....	1.46	100	Do.
		1.47	100	Do.
		1.48	100	Do.
TAILOR'S TRIMMINGS.				
Tissue, rubber, tailor's, 1½ and 1¼ inches wide.....	60 spools.....	1.35	78	Chicago.
Hooks and eyes, trousers.....	38 gross.....	1.40	41	Chicago or St. Louis.
SHIRTS.				
Shirts, fancy flannel, coat style:				
Boys', 11 to 14½ inches neck measure.....	4,237 ¹.....	.66	73	St. Louis.
Men's, 15 to 18 inches neck measure.....	3,264 ¹.....	.68	73	Do.

¹ Only.² Without cord.³ With cord.⁴ Per great gross.

Contracts awarded at St. Louis, Mo., under advertisement dated July 10, 1917—Contd.

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
GROCERIES AND PROVISIONS.				
Fish, cod, dried, boneless strips, in 5-pound boxes.	2,068 pounds....	\$0.145	104	St. Louis.
Milk, evaporated:				
In 6-ounce cans.....	232 dozen cans ..	.56	236	Do.
	678 dozen cans ..	.67	236	Do.
In 16-ounce cans.....	93 dozen cans ..	1.16	236	Do.
	364 dozen cans ..	1.39	236	Do.
Bath brick, whole.....	264 dozen ..	.74	115	Do.
Bluing, powdered.....	1,237 dozen.....	.75	115	Do.
Candles, 8's, 12, 14, or 16 ounces to the set....	300 pounds.....	1.50	115	Do.
FURNITURE AND WOODENWARE.				
Baskets, clothes.....	325.....	1.21	115	St. Louis
	330.....	.945	13	Detroit, Mich.
Matting, cocoa, reversible, 36 inches wide....	310 yards.....	.60	140	St. Louis.
HARNESS, SADDLERY, ETC.				
Blankets, horse, square, about 84 to 90 inches, cotton and wool.....	50.....	3.20	118	St. Louis.
	50.....	2.20	118	Do.
Knives, splitting, 10-inch, iron frame.....	3.....	5.25	118	Do.
Pads, sweat, yellow back, white face, 11-inch, draft, 4 hooks, common hair filling:				
Horse, sizes 17 to 24 inches.....	768.....	.37	115	Do.
Mule, sizes 15 to 16½ inches.....	48.....	.31	118	Do.
AGRICULTURAL IMPLEMENTS.				
Rakes, hay, sulky, 8-foot hand dump, 24 teeth.	22½.....	10.50	115	Hoosack Falls, N. Y.
WAGON FIXTURES.				
Wagon covers, 13 feet 9 inches long.....	167.....	8.65	254	St. Louis.
Spokes' hickory, buggy, 1½-inch.....	25 sets.....	2.82	133	Do.
TIN AND STAMPED WARE.				
Pans, fry, extra-heavy wrought steel, 16 inches across bottom.	77.....	2.80	235	St. Louis.
Tin, sheet, bright:				
10 by 14 inches, 1C.....	2 boxes.....	17.13	291	Do.
14 by 20 inches, 1C.....	10 boxes.....	16.88	291	Do.
Trays, tea, oval, about 20 inches.....	224.....	.55	235	Do.
PAINTS, OILS, AND GLASS.				
Lead, red, in oil, in kegs ("Dutch Boy" brand).	1,160 pounds....	.13	184	St. Louis, Kansas City, or Omaha.
Oil, linseed, liquid measure, in 5-gallon containers:				
Bolted—				
Delivery during August and September.....	6,150 gallons.....	\$1.33	92	Minneapolis.
Delivery during October, November, or later.....		\$1.34	92	St. Louis.
		\$1.31	92	Minneapolis.
		\$1.32	92	St. Louis.
Raw—				
Delivery during August and September.....	1,650 gallons.....	1.32	92	Minneapolis.
Delivery during October, November, or later.....		1.33	92	St. Louis.
		1.30	92	Minneapolis.
		1.31	92	St. Louis.
STOVES, ETC.				
Caldrons, iron, portable, full jacket, with furnace:				
48 gallons capacity.....	7.....	29.05	240	St. Louis.
75 gallons capacity.....	2.....	39.35	240	Do.
Ovens, Dutch, cast iron:				
10 inches diameter inside.....	3.....	1.18	240	Do.
15 inches diameter inside.....	3.....	2.04	240	Do.

1 Walter A. Woods, No. 3.

2 In 50-gallon wooden barrels, 15 cents per gallon less; in 25-gallon wooden barrels, 10 cents per gallon less.

Contracts awarded at St. Louis, Mo., under advertisement dated July 10, 1917—Contd.

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
STOVES, ETC.—continued.				
Stoves, steel box, heating, wood:				
32 inches long ²	37.....	$\left\{ \begin{array}{l} \$9.95 \\ 9.70 \\ 10.25 \\ 9.95 \\ 12.10 \\ 11.75 \\ 12.45 \\ 12.05 \end{array} \right.$	$\left\{ \begin{array}{l} 44 \\ 44 \\ 44 \\ 44 \\ 41 \\ 44 \\ 41 \\ 41 \end{array} \right.$	$\left\{ \begin{array}{l} \text{Quincy.} \\ \text{Do.} \\ \text{Chicago or St. Louis.} \\ \text{Do.} \\ \text{Quincy.} \\ \text{Do.} \\ \text{Chicago or St. Louis.} \\ \text{Do.} \end{array} \right.$
37 inches long ⁴	9.....	$\left\{ \begin{array}{l} 1.40 \\ 1.40 \\ 1.40 \end{array} \right.$	$\left\{ \begin{array}{l} 63 \\ 63 \\ 63 \end{array} \right.$	$\left\{ \begin{array}{l} \text{St. Louis.} \\ \text{Do.} \\ \text{Do.} \end{array} \right.$
Stoves, heating, 18-inch, air-tight, sheet steel, crated.	1.....	1.40	63	St. Louis.
Stoves, cooking, wood, 6-inch.....	12.....	11.40	60	Do.
Stoves, cooking, kerosene oil, wick, blue flame.	85.....	11.00	8	Do.
Stoves, portable, heating, tubular, kerosene oil, wick.	69.....	4.00	8	Do.
HARDWARE.				
Bells, school, with fixtures for hanging; mounted:				
To weigh 240 to 260 pounds.....	4.....	9.75	240	St. Louis.
To weigh 300 to 350 pounds.....	1.....	19.50	240	Do.
Cloth, wire, for screens, 14-mesh, in full rolls of 100 linear feet:				
If black.....	80,234 square feet	2.50	153	Chicago.
If galvanized.....		2.80	153	Do.
Cooks, brass, racking, to screw, loose key, $\frac{3}{4}$ -inch.	10.....	.79	153	Do.
Files, flat, bastard:				
10-inch.....	61 $\frac{1}{2}$ dozen.....	2.73	153	Do.
12-inch.....	65 $\frac{1}{2}$ dozen.....	3.79	153	Do.
Files, cabinet:				
12-inch.....	18 dozen.....	7.29	153	Do.
14-inch.....	16 $\frac{1}{2}$ dozen.....	9.67	153	Do.
Files, half round, bastard:				
10-inch.....	14 $\frac{1}{2}$ dozen.....	3.55	153	Do.
12-inch.....	22 $\frac{1}{2}$ dozen.....	4.60	153	Do.
Files, mill, bastard:				
8-inch.....	71 $\frac{1}{2}$ dozen.....	1.87	153	Do.
10-inch.....	67 $\frac{1}{2}$ dozen.....	2.46	153	Do.
12-inch.....	75 dozen.....	3.27	153	Do.
14-inch.....	54 $\frac{1}{2}$ dozen.....	4.68	153	Do.
Files, round, bastard:				
6-inch.....	20 $\frac{1}{2}$ dozen.....	1.36	153	Do.
8-inch.....	7 $\frac{1}{2}$ dozen.....	1.68	153	Do.
10-inch.....	13 dozen.....	2.18	153	Do.
12-inch.....	9 $\frac{1}{2}$ dozen.....	2.92	153	Do.
14-inch.....	8 $\frac{1}{2}$ dozen.....	4.17	153	Do.
Files, double end, taper, with handles:				
7-inch.....	135 $\frac{1}{2}$ dozen.....	1.87	153	Do.
8-inch.....	90 $\frac{1}{2}$ dozen.....	1.52	153	Do.
9-inch.....	61 $\frac{1}{2}$ dozen.....	1.72	153	Do.
10-inch.....	39 dozen.....	1.91	153	Do.
Hammers, farrier's, shoeing, cast steel.	42.....	.50	69	St. Louis.
Hammers, mason's, 8-pound, natural finish, solid cast steel, per pound.	8.....	.16	69	Do.
Matches, thumb, heave, all wrought.	18 $\frac{1}{2}$ dozen.....	1.90	153	Chicago.
Nippers, shoeing.....	40.....	.62	69	St. Louis.
Packing, asbestos wick:				
$\frac{1}{4}$ -inch.....	113 pounds.....	.60	38	Cincinnati.
$\frac{1}{2}$ -inch.....	8 pounds.....	.60	38	Do.
$\frac{3}{4}$ -inch.....	51 pounds.....	.60	38	Do.
1-inch.....	137 pounds.....	.60	38	Do.
Presses, meat.....	15.....	.90	153	Chicago.
Punches, hand, oval.....	29.....	.40	270	St. Louis.
Scales, hay and cattle:				
6-ton.....	4.....	80.00	124	Do.
10-ton.....	2.....	92.50	124	Do.
Scales, platform, counter, 240 pounds.....	8.....	3.50	124	Do.
Scales, platform, drop lever, on wheels:				
1,000-pound.....	16.....	19.00	124	Do.
2,000-pound.....	3.....	24.00	124	Do.
Shovels, fire, hand, long handle.....	47 $\frac{1}{2}$ dozen.....	1.32	69	Do.
Stocks and dies, blacksmith's, to cut $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, 1, $\frac{1}{2}$, $\frac{3}{4}$, 1, $\frac{1}{2}$, 1, and 1 inch, complete.	44 sets.....	16.50	153	Chicago.
Trimmers, spoke, adjustable.....	13.....	.60	69	St. Louis.

¹ Crated.² Uncrated.³ 35 inches.⁴ 40 inches.

Contracts awarded at St. Louis, Mo., under advertisement dated July 10, 1917—Contd.

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
HARDWARE—continued.				
Ladies, wrought, double lip:				
4-inch.....	13.....	\$0.46	69	St. Louis.
6-inch.....	7.....	.54	09	Do.
Ratchets, sleeves:				
Handles 10 inches long.....	5.....	6.75	69	Do.
Handles 16 inches long.....	2.....	8.40	69	Do.
Nozzles, hose, screw, combination.....	61.....	.42	69	Do.
Stopcocks, brass, steam, $\frac{1}{2}$ inch.....	62.....	1.09	139	St. Louis or Chicago
Handcuffs, steel, self-locking, adjustable.....	24 pairs.....	5.00	207	Springfield, Mass.
MEDICAL SUPPLIES.				
Oils:				
Camphorated oil.....	273 boxes.....	.40	22	Chicago.
Cod-liver, emulsion of, simple, U. S. P., in bottles containing 16 ounces.....	2,975 bottles.....	.50	22	Do.
Cod-liver, U. S. P., in bottles containing 16 ounces.....	1,819 bottles.....	.50	22	Do.
Croton, U. S. P., in bottles containing 1 ounce (Antonie Chiris).....	12 bottles.....	.20	115	St. Louis.
Male fern, ethereal, in bottles containing 2 ounces (oleoresin), per ounce.....	49 bottles.....	.75	201	Within United States.
Peppermint, U. S. P., in bottles containing 4 ounces.....	263 bottles.....	1.05	257	Cleveland.
Tinctures:				
Colchicum seed, U. S. P., in bottles containing 4 ounces.....	67 bottles.....	.33	115	St. Louis.
Opium, U. S. P. (laudanum), in bottles containing 16 ounces.....	96 bottles.....	3.00	22	Chicago.
Miscellaneous:				
Acetphenetidin, powdered, U. S. P., in cartons containing 1 ounce.....	94 cartons.....	1.75	257	Cleveland.
Adephane, anhydrous, U. S. P., in cans containing 1 pound.....	155 cans.....	.78	115	St. Louis.
Cargento, in bottles containing 1 ounce.....	55 bottles.....	.75	178	Do.
Balsam, Peru, U. S. P., in bottles containing 2 ounces.....	294 bottles.....	.70	257	Cleveland.
Calcium, oxide, powdered, U. S. P., in bottles (size to make 1 gallon lime water).....	506 bottles.....	.21	115	St. Louis.
Chalk, prepared, U. S. P., in cartons containing 4 ounces.....	511 cartons.....	.06	22	Chicago.
Chloretone, in 6-grain capsules, in bottles of 100.....	4 bottles.....	.90	201	Within United States.
Dionin, in bottles containing $\frac{1}{2}$ ounce.....	76 bottles.....	2.50	257	Cleveland.
Ergot, aseptic, in boxes of three 1-cc. ampoules.....	260 boxes.....	.35	201	Within United States.
Guaicol carbonate, U. S. P., in cartons containing 1 ounce.....	124 cartons.....	5.00	154	(1)
Hydrastis, colorless, in bottles containing 16 ounces. ¹	108 bottles.....	1.50	257	Cleveland.
Physoctigine, salicylate, U. S. P., in tubes containing 10 grains.....	3 tubes.....	3.00	257	Do.
Petrolatum, 112° F. melting point, U. S. P., light colored, in cans containing 1 pound.....	4,180 cans.....	.145	193	New York City or Brooklyn.
Petrolatum, liquid, U. S. P., in sealed cans containing 1 pound (colorless).....	573 cans.....	.25	201	Within United States.
Quinine and urea-hydrochloride, 1 per cent, in boxes of six 5-cc. ampoules.....	157 boxes.....	.45	257	Cleveland.
Instruments, etc.:				
Albuminometers, Esbach's.....	10.....	.55	3	St. Louis.
Applicators, wood, for nose and throat, in cartons of 72 dozen.....	331 cartons.....	.23	257	Cleveland.
Bags, obstetrical, all leather, 18 inches long, metal frame, with four 2-ounce wide-mouth bottles; to have clamp to hold bag open when in use.....	20.....	8.50	3	St. Louis.
Binder's boards—				
24 by 12 inches.....	452 pieces.....	.015	3	Do.
4 by 17 inches.....	474 pieces.....	.04	3	Do.
Dilators, uterine, Goodell's, small blade.....	7.....	5.00	3	Do.
Douche tubes, uterine, glass.....	131.....	.12	22	Chicago.
Forceps, trachoma—				
Knapp's.....	32.....	2.25	3	St. Louis.
Noyes, oval.....	26.....	1.20	219	Do.

¹ St. Louis or points in United States east of the Mississippi.

² Solution hydrastine, compound, colorless.

Contracts awarded at St. Louis, Mo., under advertisement dated July 10, 1917—Contd.

Articles.	Quantity awarded.	Unit price.	No. of contractor.	Point of delivery.
MEDICAL SUPPLIES—continued.				
Instruments, etc.—Continued.				
Inhalers, chloroform, Esmarch's, complete with bottle.	23.....	\$0.75	3	St. Louis.
Powder blowers, for larynx.....	37.....	.60	3	Do.
Sphygmomanometer, aneroid.....	42.....	15.75	219	Do.
Splints, assorted sizes.....	36 dozen.....	.75	22	Chicago.
Syringes—				
Dental, for local anesthesia, complete.	24.....	1.65	115	St. Louis.
Fenils, glass, cone point, in cases.....	717.....	.06	115	Do.
Surgical dressings, etc.:—				
Bandages, suspensory.....	340.....	.22 ¹	22	Chicago.
Ligature, catgut, in glass tubes; one 20-inch strand in each tube; sizes 0, 1, and 2, as may be required—				
Plain.....	1,618 tubes.....	.065	115	St. Louis.
10-day chromicized.....	1,578 tubes.....	.065	115	Do.
Ligature, umbilical tape, linen, in glass tubes; two 9-inch tapes in each tube.	1,088 tubes.....	.065	115	Do.
Oiled silk, opaque, 30 inches wide—				
In 1-yard rolls.....	178 yards.....	.88	115	Do.
In 5-yard rolls.....	176 yards.....	2.98	115	Do.
HOSPITAL STORES.				
Basin, pus, medium size, enameled ware.....	93.....	.25	115	Do.
Boxes, powder.....	1,688 dozen.....	.065	115	Do.
Brushes, nail or hand, for surgical use.....	781.....	.15	3	Do.
Cases, medicine, buggy.....	17.....	11.10	3	Do.
Capsules, gelatin, assorted, Nos. 0 to 4.....	1,300 boxes ¹.....	.07	201	Within United States.
Droppers, medicine.....	23,636.....	.01	115	St. Louis.
Labels, blank, prescription, gummed, without any printing:				
1 by 2 inches.....	61,500.....	.03	115	Do.
2 by 3 inches.....	67,200.....	.055	115	Do.
3 by 4 inches.....	23,200.....	.095	115	Do.
Measures, graduated, glass:				
8-ounce.....	63.....	.26	3	Do.
4-ounce.....	68.....	.22	3	Do.
Minim.....	71.....	.24	3	Do.
Medicine glasses, 4-ounce, graduated.....	175 dozen.....	.075	3	Do.
Paper, filtering, round, gray, 10-inch.....	711 packs.....	.92	115	Do.
Percolators, glass, 1-gallon.....	12.....	.90	3	Do.
Pill boxes, paper, in boxes of 1 gross.....	495 gross.....	.845	115	Do.
Saddlebags, medical, convertible.....	2.....	10.75	219	Do.
Test-type and astigmatic chart (for testing vision), International Standard.....	34.....	.50	3	Do.
Spirit lamps.....	54.....	.16	3	Do.
Stillis, of moderate price, for making distilled water, 1-gallon size.....	11.....	8.50	3	Do.
Tubes, drinking, glass, assorted sizes.....	39 gross.....	.745	115	Do.
Vials (all vials must be carefully packed, and in strong cases or boxes):				
1-ounce.....	1,428 dozen.....	.14	130	Do.
1-ounce.....	2,112 dozen.....	.15	130	Do.
2-ounce.....	4,165 dozen.....	.17	130	Do.
4-ounce.....	3,583 dozen.....	.23	130	Do.
6-ounce.....	1,603 dozen.....	.26	130	Do.
Syringes, hypodermic, regular size, 30 minims, with 2 needles, in metal case.....	152.....	1.10	3	Do.

¹ Only.

**REPORT OF THE BOARD OF INDIAN
COMMISSIONERS.**

325

BOARD OF INDIAN COMMISSIONERS.

GEORGE VAUX, Jr., Chairman, Philadelphia, Pa.; appointed November 27, 1906.
MERRILL E. GATES, Washington, D. C.; appointed June 27, 1884.
WARREN K. MOOREHEAD, Andover, Mass.; appointed December 19, 1908.
SAMUEL A. ELIOT, Boston, Mass.; appointed November 27, 1909.
FRANK KNOX, Manchester, N. H.; appointed May 2, 1911.
EDWARD E. AYER, Chicago, Ill.; appointed November 18, 1912.
WILLIAM H. KETCHAM, Washington, D. C.; appointed December 3, 1912.
DANIEL SMILEY, Mohonk Lake, N. Y.; appointed December 17, 1912.
ISIDORE B. DOCKWEILER, Los Angeles, Cal.; appointed December 22, 1913.
MALCOLM McDOWELL, Chicago, Ill.; appointed May 23, 1917.

FORTY-EIGHTH ANNUAL REPORT OF THE BOARD OF INDIAN COMMISSIONERS.

FISCAL YEAR ENDING JUNE 30, 1917.

SEPTEMBER 1, 1917.

SIR: We have the honor of submitting herewith the Forty-eighth Annual Report of the United States Board of Indian Commissioners for the fiscal year ending June 30, 1917.

The board's field activities during the year consisted in inspections and surveys of 31 reservations, agencies, schools, and hospitals and in cooperating with the Commissioner of Indian Affairs in the letting of contracts for supplies at the Indian warehouses in Chicago and St. Louis. An inspection also was made of the Indian warehouse in San Francisco. Its office work, in addition to the routine, included investigations into and the study of several important problems affecting the Indians with special emphasis placed on the "returned-student" problem.

Following is a list of the reservations, agencies, and schools visited and inspected by members of the board with their recommendations and conclusions:

OSAGE INDIANS—COMMISSIONER VAUX.

(Filed Feb. 9, 1917.)

Osage Indians at Pawhuska, Gray Horse, and Hominy, Okla., and the Osage Indian Boarding School, at Pawhuska, J. George Wright, superintendent. (See Appendix A.)

RECOMMENDATIONS.

That a distinction be made between the part bloods and the incompetent full bloods, and that the part bloods be given their full share of tribal and individual property to do with it as they see fit, while greater efforts be made fully to protect the full bloods; that the oil and gas of the western portion of the reservation be conserved as an entirety for future use by the United States Government; that the trust period be at once extended for 25 years to 1956; that the Osage Indian Boarding School at Pawhuska be indefinitely continued; that the present efforts to control the liquor traffic be continued and strengthened wherever possible; that the Indians be encouraged to move onto and farm their allotments and, as an effective aid in this direction, that the congressional enactment establishing the Indian villages of Pawhuska, Gray Horse, and Hominy be modified to the end that the number of Indians living in those towns may be materially reduced.

EASTERN CHEROKEES—COMMISSIONER KETCHAM.

(Filed Feb. 19, 1917.)

Cherokee Reservation in western North Carolina, superintendent, James E. Henderson. (See Appendix B.)

RECOMMENDATIONS.

That eight cottages for agency employees with families be built; that a field matron especially qualified to teach home canning to the women be detailed to this jurisdiction; that a physician, having surgical experience, be assigned to the hospital; that an assembly hall and gymnasium, an industrial building for boys, and a new horse barn be built; that more land for the school farm be provided; that the reservation boarding school be enlarged to increase its capacity.

TUBERCULOSIS AMONG CHOCTAWS—COMMISSIONER KETCHAM.

(Filed May 16, 1917.)

Talihina Sanatorium, Choctaw Nation, Okla., and prevalence of tuberculosis among the Choctaws, Chickasaws, and other Indians of Oklahoma. (See Appendix C.)

RECOMMENDATIONS.

That the Talihina Sanatorium be devoted particularly, if not exclusively, to tuberculosis, and a Choctaw or Chickasaw official be attached to the hospital; that a colony for tubercular patients, who must have a change of climate, be established in Texas or New Mexico under the supervision of a reliable member of the Choctaw or Chickasaw Tribe; that a vigorous campaign of education in every Indian community, to awaken the Indians to a realization of their peril, be started at once, and the necessary literature be printed in the Choctaw language and distributed immediately.

EUFULA INDIAN SCHOOL—COMMISSIONER KETCHAM.

(Filed May 16, 1917.)

Eufaula Indian School for Creek girls, just outside corporate limits of Eufaula, Okla., superintendent, Mrs. Gertrude C. Melton. (See Appendix D.)

RECOMMENDATIONS.

That an employees' lodge and new laundry be built; that the school farm be sold and the proceeds used to purchase ample acreage contiguous to the school.

NAVAJO INDIANS—COMMISSIONER KNOX.

(Filed June 2, 1917.)

Leupp Reservation (Navajo Indians), Ariz., superintendent, Stephen Janus. (See Appendix E.)

RECOMMENDATIONS.

That the status of the land within this jurisdiction north of the Little Colorado River be changed to that of an Indian reservation; that negotiations for the exchange of land between the Government and the railroad companies be speedily concluded so that the land may be saved to the Indians; that the Government largely expand the educational facilities for the Navajo children.

WALAPAI INDIANS—COMMISSIONER KNOX.

(Filed June 2, 1917.)

Truxton Canyon Reservation and School, Valentine, Ariz., superintendent, Charles E. Shell. (See Appendix F.)

RECOMMENDATIONS.

That special attention be given the housing conditions of the Walapai Indians; that the water supply of the reservation be further developed.

PAPAGO INDIANS—COMMISSIONER ELIOT.

(Filed June 2, 1917.)

San Xavier Agency, Papago Reservation, Ariz., superintendent, Jewell D. Martin. (See Appendix G.)

RECOMMENDATIONS.

That the agency be transferred from San Xavier to Indian Oasis or Santa Rosa; that electric power for the wells at San Xavier be secured as soon as possible; that the Papagos be encouraged to work at road building and in the making of wells and irrigation ditches; that the Indians at San Xavier be encouraged to farm their allotments with closer application and more persistent industry; that there be a closer cooperation between the agency officials and the agricultural experiment station at the University of Arizona and the desert laboratory at Tucson; that more attention be given to developing the surface water supply.

SAN CARLOS APACHES—COMMISSIONER ELIOT.

(Filed June 2, 1917.)

San Carlos Reservation, superintendent, Ernest Stecker, and Rice Station Indian School, Dr. J. S. Perkins, superintendent, Arizona. (See Appendix H.)

RECOMMENDATIONS.

That the agency and school expenses of the San Carlos Reservation be met by specific gratuity appropriation, so that all of the revenue derived from cattle-range leases may be used for and by the Indians under proper regulations; that the fund of approximately \$12,000,

the proceeds from the sale of Indian land now standing to the credit of the tribe in the Treasury, be used to purchase cattle for the San Carlos Apaches; that the Indian Office be urged to push vigorously the sinking of irrigation wells and the installation of pumps on this reservation; that a small hospital of modern kind and equipment be built on the agency grounds; that the Bylas day school be enlarged so as to take care of the children who can not now be accommodated because of the inadequate capacity of the school; that the lighting system of the Rice nonreservation school be improved and a new dairy barn built for the school.

MISSION INDIANS—COMMISSIONER KNOX.

(Filed June 8, 1917.)

Pala (Mission Indians) Agency, Rincon, La Jolla, and Pechanga reserves and schools, southern California; Thomas F. McCormick, superintendent. (See Appendix I.)

RECOMMENDATIONS.

That at Pala immediate steps be taken to safeguard the banks of the San Luis Rey River from further erosion, and provision be made for the installation of the necessary plumbing and fixtures to connect the houses in the village with the sewage system; that the bridge over the San Luis Rey River, which was carried away during the freshet of 1916, be restored as soon as possible; that there be a reallocation of all Indians at Rincon, La Jolla, and Pechanga; that the water resources at Pechanga be scientifically developed as soon as possible; that the Government appropriate \$15,000 toward the cost of improvement of the wagon road between Pala and Temecula.

LANDLESS INDIANS—COMMISSIONER SMILEY.

(Filed June 8, 1917.)

A survey of the nonreservation or "landless" Paiute, Washoe, and Pit River Indians in California and Nevada; the Reno (Nev.) Special Agency; the Carson Indian School, James B. Royce, superintendent, at Stewart, Nev.; the Nevada or Pyramid Lake Reservation, Joseph D. Oliver, superintendent, Nevada; the Fort Bidwell Indian School, Eugene N. Tardy, superintendent, Fort Bidwell, Cal.; and the Alturas and Likely day schools, California. (See Appendix J.)

RECOMMENDATIONS.

That Congress be strongly urged to make larger appropriations for the nonreservation or "landless" Indians in western Nevada and northeastern California (under the Reno Special Agency) to enable the Commissioner of Indian Affairs to carry out his plans for securing permanent homes for them; that a competent person be added to the staff of the Reno Special Agency whose sole duty will be to look after the physical, educational, and moral welfare of these Indians; that the question of moving the Fort Bidwell School to a better location be seriously considered; that Congress be re-

quested to enact legislation which will place, with broad discretionary powers, in the hands of the Commissioner of Indian Affairs a substantial sum of money, so that he may be able to meet extraordinary ration and charity demands without loss of time; that a new dormitory for the younger students be built at Carson School; that the Commissioner of Indian Affairs be requested to consider the advisability of selling the allotted lands of the Washoe Indians in western Nevada and of the Pit River and Paiute Indians in Modoc County, Cal., the proceeds to be used for the benefit of the allottees; that the allotment of the Nevada (Pyramid Lake) Reservation lands be made speedily.

SOBOBA RESERVATION—COMMISSIONER ELIOT.

(Filed June 13, 1917.)

Soboba (Mission Indians) Reservation, southern California, Harry E. Wadsworth, superintendent. (See Appendix K.)

RECOMMENDATIONS.

That the rights of the Indians in the suits of the San Jacinto Water Co. be effectively defended; that an appropriation of at least \$5,000 be made to rebuild the bridge across the San Jacinto River, which went out in the flood of 1916; that an inexpensive building to be used as a community house be constructed, also a shed for the storage of agricultural implements and tools; that a simple field hospital be located at once at Soboba.

THE PUEBLOS—COMMISSIONER VAUX.

(Filed June 16, 1917.)

Sandia, San Felipe, Santo Domingo, Santa Ana summer pueblo, Isleta, Laguna, Paguete and Acoma pueblos, New Mexico, all under the Pueblo day schools, Philip T. Lonergan, superintendent; the Albuquerque Indian School, Reuben Perry, superintendent; the Sante Fe Indian School, Frederick Snyder, superintendent. (See Appendix L.)

RECOMMENDATIONS.

That a thoroughly competent and disinterested attorney should be appointed for these Indians and that in connection with suits to protect their land titles further congressional enactment be secured to give the Federal courts exclusive jurisdiction in all Indian cases in New Mexico; that all the Indian grants which have not been surveyed be surveyed at once and the location of all squatters be defined and the boundaries of all pueblos be fenced (if this latter can be done without infraction of existing laws) and suits to quiet title and evict squatters be entered immediately after the surveys of Indian grants have been made; that more medical attention and sanitary supervision be given to all the pueblos; that a modernly equipped well-driving outfit be secured to provide domestic water for the pueblos; that a day school be established at the summer pueblo at Santa Ana; that steps be taken by the Indian Bureau to

secure for the Isleta pueblo the land claimed by the Indians; that the Laguna allotments, made many years ago, be reviewed with the object of securing a more equitable distribution of the land.

PIMA INDIANS—COMMISSIONER ELIOT.

(Filed June 18, 1917.)

The Pima Reservation, reservation and day schools, Sacaton diversion dam and bridge on the reservation, Ralph E. Ward, superintendent. (See Appendix M.)

RECOMMENDATIONS.

That special efforts be made to secure the additional appropriation required to build the diversion dam with bridge superstructure across the Gila River at Sacaton; that a cottage be built for the reservation physician at Gila Crossing; that day schools be provided for Sacaton Flats and Cooperative Village; that a physician who is a specialist in trachoma and another field matron be permanently assigned to the Pima Reservation.

SALT RIVER RESERVATION—COMMISSIONER ELIOT.

(Filed June 28, 1917.)

Pima, Maricopa, and Mohave-Apache Indians at Salt River Reservation, Camp McDowell and Lehi, Charles T. Coggeshall, superintendent. (See Appendix N.)

RECOMMENDATIONS.

That provision be made for a larger water supply for irrigation.

SHERMAN INSTITUTE.

During the special meeting of the board at Riverside, Cal., we had abundant opportunity to make an examination of the Sherman Institute. We were favorably impressed with the large attendance of children, the excellent spirit which animated all their doings and the effective work of Supt. Conser and his staff. The main school plant covers approximately 40 acres, largely occupied by the necessary buildings, lawns, and playgrounds, and to grow the vegetables for student consumption it was necessary to rent some 40 acres contiguous to the grounds. The school farm is 5 miles from the main plant and of its 100 acres almost 10 are required for buildings, etc., so that the area under cultivation does not exceed 90 acres. Several miles from the school 190 acres are rented for dry farming on which barley and wheat are grown for hay.

We are of the opinion that at least 40 acres adjoining the school grounds should be bought so that larger quantities of food products may be grown for school use and we recommend that Congress be urged to appropriate at least \$20,000 for this additional acreage.

TUBERCULOSIS IN OKLAHOMA.

We desire to direct your particular attention to the gravity of the health situation in Oklahoma as disclosed by Commissioner Ketcham, who investigated the ravages caused by tuberculosis among the Choctaws and Chickasaws. We feel strongly that measures should be taken at once to cooperate with the Oklahoma State officials in providing ways and means to segregate all tubercular Indians in the State not only to safeguard the unaffected Indians but their white neighbors as well.

PURCHASE OF SUPPLIES.

Commissioner Ketcham represented the board at the annual letting of contracts for Indian Service supplies at Chicago and St. Louis. He reported that prices uniformly were exceptionally high but in keeping with the general conditions found, according to common report, in other purchasing branches of the Government. In many lines goods were scarce and some of the manufacturers would not bid for long contracts because the conditions of the primary markets were too unsettled. Notwithstanding these embarrassing conditions most of the necessary supplies were bought.

The good quality of food supplies was maintained and, in other lines, quality was not sacrificed merely for the sake of economy. But much care was taken to see that articles which clearly were not absolutely needed either were bought only in part or not at all and substitutions were made where it was considered they would meet the wants and, at the same time, effect a substantial saving.

For instance, none but those schoolbooks which are essential for schoolroom work were bought, this effected a saving of several thousands of dollars. A considerable saving was made by buying but half of the vitrified chinaware. In the dry-goods line denim for curtains and table covers—purely ornamental uses of the material—was eliminated and likewise the facinators used at odd times by Indian schoolgirls, counterpanes, and like articles which serve certain purposes but are unnecessary. Because of the much increased cost resulting from the high values of dyes, dark outing flannel was not bought, but the darkest patterns of light-colored flannel were substituted at a good saving. The war-raised price of indigo dye having almost doubled the price of indigo percale, none was purchased. Instead, noncrinkled seersucker was substituted, and it also was purchased in lieu of crinkled seersucker at a saving of several cents a yard.

Other savings were effected as follows: Opaque for window shades is to be bought only for new buildings. A cheaper line of leather work gloves was bought. Iron and steel requisitions were cut in half. A good grade of lard compound was substituted for the pure lard heretofore used. Khaki hats for the Indian schoolboys and the police were selected in place of felt hats at a saving of a dollar a hat and, wherever practicable, khaki and corduroy were bought instead of woolen clothing. The surplus stock of drugs in the service will be used to fill 1918 requisitions so far as they will go, for contracts were made only for enough drugs which, with the surplus, will meet the needs during the year.

Commissioner Ketcham was much impressed with the high character of the work done by the representatives of the Indian Office at the lettings and with the intelligence and good sense with which they met the difficult situations and abnormal conditions.

RETURNED-STUDENT PROBLEM.

For some years we have been painfully impressed with the large proportion of boys and girls who, after returning to their reservations from Indian schools, fail to put into practice what they were taught at the schools. In too many instances these so-called "returned students" not only do not show any progress, but actually go backward.

In an endeavor to get at the cause of these failures a questionnaire, having the "returned student problem" for its subject matter, was sent to nearly 150 reservation superintendents and superintendents of large nonreservation schools. They were requested to give their views on the subject and a majority responded. Their thoughtful, interesting, and almost appealing letters leave little room for doubt that on every reservation there is a proportion of student failures altogether too large to be viewed with indifference. But, at the same time, the superintendents united in declaring that the percentage of failures grows smaller continually, a fact that warrants the assertion that our method of educating the Indians is achieving results though so slowly that progress may be measured in terms of generations.

In the opinion of almost all the superintendents the chief cause of the failures of returned students is the Indian reservation; its life and environment; its lack of opportunities to put into practice what is learned at school and the prejudices and conservatism of the old and uneducated Indians who easily influence the younger Indians, whose filial respect closely approaches veneration, and who are extremely sensitive to ridicule.

The Government takes the young Indian from his reservation, places him in a school, feeds, clothes, amuses, and educates him; then sends him back to the reservation, and, apparently, forgets him. The ex-student finds little or nothing at his home which measures up anywhere near the standard of living he had become accustomed to at the Indian school. Instead of encouragement he meets discouragement; instead of cooperation he meets antagonism.

We agree with the superintendents, and with the Indian Office, that there must be a decided improvement in living conditions among the Indians if the progress toward civilization, begun in the reservation and nonreservation schools, is to be hastened.

FIELD MATRONS.

There is at hand, in the Indian Service, a human agency which can do more to improve Indian home conditions than any other branch of the Indian Bureau. This is the field matron service, composed of women who go into the homes of the Indians and who daily are in intimate contact with Indian families.

In the last Indian appropriation act there is an item for \$75,000 for additional field matrons. While this looks like a large appropriation it is entirely insufficient to provide and equip field matrons

for all the reservations which need them. The field matron service has never been properly appreciated. Perhaps this is because it is not organized along the most effective lines. The service seems to lack coordination in reservation activities, officials and superintendents apparently do not fully comprehend the scope of field matron work; and the field matron should have more authority and better transportation.

We are of the opinion that there should be in the Indian Office a "welfare" section devoted to the problems of the Indian women and children, and the head of this welfare section should be a woman. It is the purpose of the Board of Indian Commissioners to make a special study of reservation social service with particular reference to the returned students, and field matrons in the hope that, in a short time, there will be laid before you plans for reservation activities which may prove to be the solution of the whole returned-student problem.

On some of the larger reservations, where Indian homes are scattered over extensive areas, the number of family visits a field matron can make is measured by her transportation facilities. If field matrons were provided with automobiles, not only the number of their daily visits would be largely increased but they would be equipped to bring emergency cases to the agency hospital quickly and comfortably.

INDIAN LABOR IN ARIZONA.

A condition which should have immediate consideration touches Indian labor in Arizona. During the last two years there has been a wonderful increase in the acreage planted to cotton, and every indication points to a stimulated augmentation of cotton area in the irrigable belt. To handle the crop will require the employment of thousands of men and women, and the cotton planters are looking to the Indians of Arizona and adjoining States as a source of labor supply.

Accurate figures giving the acreage of the area under cotton cultivation and in development are not available, but members of the board who inspected Indian jurisdictions in Arizona this year had abundant opportunity to see the great agricultural development in what, a few years ago, was an arid and semiarid country.

Commissioner Ayer has given this subject his particular attention so far as it relates to the Indian, and his reports to the board show that the cotton country of Arizona promises to provide gainful work for a large number of Indians, even though they are employed only during the cotton-picking season. But this opportunity carries with it a situation which may develop into a serious problem.

If a large number of Indian workers are brought into this cotton country there will be gathered, in one section of the State, for a few weeks each year, hundreds or thousands of men, women, and children from all parts of Arizona and adjoining States; Apaches, Mohaves, Navajos, Pimas, Papagos, Maricopas, Yumas, and, probably, Yaqui from Mexico. These Indians will be without the oversight of their superintendents. They will, in a measure, be free from accustomed authority and there is danger, unless proper provision be made to care for them, that there will be duplicated in Arizona the dis-

graceful and immoral conditions which obtain during hop-picking seasons in certain parts of the Northwest and berry-picking seasons in the Eastern and Central States.

We look upon this cotton development in Arizona as a hopeful opportunity to advance the Indians toward self-support but, at the same time, we recognize the fact that a mixed community, composed of members of several tribes who are temporarily without the safeguards of reservation jurisdiction, is apt to develop deplorable conditions.

We feel strongly that proper provision must be made now for decent living conditions for such Indians as may go to work in this section of Arizona. Houses, or decent tents, should be provided by the employing cotton planters and we are glad to inform you that Commissioner Ayer, who brought this situation to the attention of several of the larger growers, has their promises that not only will they build such houses but they will cooperate in any efforts which may be put forth in behalf of their Indian workers.

Although we are aware that the officials of the Indian service who are in close touch with this situation are alive, not only to the opportunities for the economic advancement of the Indians presented by the Arizona cotton industry, but to the problems which will spring from this industry, we urge the Commissioner of Indian Affairs to give this matter his earnest and immediate attention.

COMMISSIONER SELLS'S POLICY.

One of the principal features of the administration of Indian affairs during the year was the promulgation, on April 7, 1917, by Commissioner Sells of his "declaration of policy."

In brief, the commissioner declared the time had come for the separation of the full bloods and mixed bloods, for discontinuing Federal guardianship of all competent Indians and "giving even closer attention to the incompetents that they may more speedily achieve competency."

In his declaration the commissioner says:

Broadly speaking, a policy of greater liberalism will henceforth prevail in Indian administration to the end that every Indian, as soon as he has been determined to be as competent to transact his own business as the average white man, shall be given full control of his property and have all his lands and moneys turned over to him, henceforth he will no longer be a ward of the Government.

We heartily approve of Commissioner Sells's declared policy and desire to point out that it is in line with policies which the Board of Indian Commissioners has advocated, consistently and continuously, for more than a quarter of a century, and we believe, with the commissioner, that when his policy is transformed into the desired results the end of governmental administration of Indian affairs will be hastened.

RIFLE RANGES FOR SCHOOLS.

Some months before the United States declared war on Germany, Commissioner Ayer made the suggestion that rifle ranges be provided for nonreservation schools, so that the Indian boys might be instructed in target practice according to the methods of the Regular

Army. The developments of the last few months have added strength to the suggestion, and the board recommends that nonreservation schools be provided with rifle ranges equipped with the regulation targets, that rifles and ammunition be secured from the War Department, and the boy students of such schools be trained in the use of the Army rifle.

IMPROVEMENT OF INDIAN HORSES.

At the special meeting of the board at Riverside, Cal., a resolution was adopted recommending that the Indian Bureau substitute grade Morgan stallions for breeding purposes on the southwestern reservations, where stock raising is the principal industry, in place of grade Percherons, now generally employed. The result of breeding Percherons to Indian ponies is an animal useful for farm work, but too clumsy for cattlemen, who require quickness, endurance, and spirit in a horse used as a saddle animal on a range.

There is, however, an even more vital and compelling reason for substituting Morgans for Percherons on reservations where cattle raising is the principal industry. The war has created an urgent demand for saddle stock suited to Army uses, and there seems to be no reason why the reservations in the Southwest can not be built up into important sources of supply for the lighter type of Army horse, and such a horse can never be produced by using Percheron stallions. We may add that this matter has been submitted, by Commissioner Knox, to some experienced Cavalry officers of the Regular Army, and their judgment is in accord with that expressed above.

NEW YORK INDIANS.

The last legislature of New York authorized the establishment of the New York State police, or State troopers, as the command is called. Units of this force will be located in various parts of the State, and where any unit is near the Indian reservation, the troopers, who are authorized to arrest without warrant, will cooperate with the local authorities in the policing of such reservation. For many years the State has exercised certain police powers on reservations, but the long drawn out and never settled controversy over the question whether the New York Indians are Federal or State Indians frequently has made futile the efforts to maintain law and order on the reserves.

The Federal Government does not attempt to police the reservations, which are isolated communities in close proximity to white people who are under State laws. The lack of proper regulations on reservations has injuriously affected both whites and Indians and has encouraged drunkenness and immorality among the Indians. Public-spirited citizens of the State who, for some years, have been much concerned over the deplorable condition on some reservations, are of the opinion that the moral effect of State troopers, riding occasionally over the reservations, will be most helpful. But they point to the fact that there are no proper courts before which to bring offenders. It was to provide such courts that the Kincaid bill, which

authorizes the appointment of justices of the peace with full jurisdiction to hold court on Indian reservations, was introduced in the last New York Legislature, and it is purposed to reintroduce the bill at the next session.

We heartily approve of the steps which are being taken by the State of New York to maintain law and order on the reservations, and are unable to see why the United States or any person who is really interested in the welfare of the New York Indians should object to the exercise, by the State, of a police jurisdiction which it has been exercising for more than a century.

BOARD MEETINGS.

The board held four meetings during the fiscal year; a special meeting at the home of Chairman Vaux, Pocono Manor, Pa., July 25 to 26, 1916; the semiannual meeting at Lake Mohonk, N. Y., October 18 to 20, 1916; the annual meeting at Washington, January 30 to February 1, 1917; and a special meeting at Riverside, Cal., March 10 to 12, 1917.

At the annual meeting Commissioner George Vaux, jr., of Philadelphia, Pa., was reelected chairman of the board and Malcolm McDowell, of Chicago, Ill., was reelected secretary, each for the ensuing year.

DEATH OF COMMISSIONER WALKER.

Commissioner William D. Walker, who was appointed a member of the board December 15, 1886, died in Buffalo, N. Y., his home, May 2, 1917. By his death the Indians lost one of their best and most consistent friends and the board a valued and loved member who had been a faithful commissioner for more than 30 years.

Malcolm McDowell, of Chicago, Ill., was appointed a member of the board, in succession to Bishop Walker, by the President, May 23, 1917.

In concluding this report we wish to record our appreciation of the effective assistance you gave us during the year, which not only helped us materially in our work but made it the more pleasant and, too, we desire to express our appreciation of the many courtesies shown us by the Commissioner of Indian Affairs and the members of his official family.

Faithfully, yours,

GEORGE VAUX, Jr., *Chairman.*
MERRILL E. GATES.
WARREN K. MOOREHEAD.
SAMUEL A. ELIOT.
FRANK KNOX.
EDWARD E. AYER.
WILLIAM H. KETCHAM.
DANIEL SMILEY.
ISIDORE B. DOCKWEILER.
MALCOLM McDOWELL.

To the SECRETARY OF THE INTERIOR.

APPENDIX A.

REPORT ON THE OSAGE INDIANS, OKLAHOMA, BY GEORGE VAUX, JR.

PHILADELPHIA, *February 7, 1917.*

GENTLEMEN: I have the honor to submit herewith my report upon investigations among the Osage Indians in Oklahoma, conducted by me from June 9 to 17, 1916. Upon this trip I was accompanied by our secretary, Malcolm McDowell, and together we got an excellent idea of conditions upon the Osage Reservation. We made our headquarters at Pawhuska, the county seat, where also the office of the Osage Agency is situated. In addition we drove by motor to Hominy and Gray Horse, the other two important villages. We had two councils with the Indians which were attended by very considerable numbers of them, and in addition talked to many individuals and also a large number of white men. The general results of our observation are set forth in the following:

A PROBLEM OF RICHES.

The general conditions at the Osage Agency are so absolutely different from those which exist anywhere else in the Indian country that none of the usual ideas which we have formed respecting them seem to apply. As a rule, the problem of the Indian is the problem of poverty. With the Osages it is just the reverse. The problem is the problem of riches. To begin with, each Indian has his homestead and allotments of 160 acres, and in addition about 500 acres each of surplus land, all allotted, in many instances subject to a trust period of 25 years, which will expire in 1931, although a very considerable number of these Indians have been declared competent and the restrictions as respects their surplus lands at least removed. It is estimated that their per capita proportion of the general wealth is over \$10,000. There are nearly \$5,750,000 of trust funds in the United States Treasury belonging to them, and in addition there are the very large royalties which they receive from oil and gas leases.

PER CAPITA PAYMENTS.

The following per capita payments of income have been made in recent years: Fiscal year 1913, \$511.14; fiscal year 1914, \$990.88; fiscal year 1915, \$463.68; fiscal year 1916, \$575.93, making the total payments per capita for the four years \$2,541.63, or a total of \$4,116,817.18. In addition to the ordinary royalties there has just been made a per capita payment of about \$922 from the amounts received from the bonuses on the leases made last spring, and another payment of \$527.13 per capita is about to be made from additional funds derived from the same source. These last two amounts are in addition to the regular annuities. It is not to be wondered at that families which receive such large sums of money as are here indicated should be disinclined to work when, without effort on their part, these large sums come into their hands with which to employ

others to work for them. In addition to this most of them lease their allotments, and, while many of the Indians make so-called informal leases so that the income they receive is not known with definiteness under certain new regulations, recently promulgated, a very considerable number of leases are submitted for approval by the Secretary of the Interior. About 1,500 leases relative to which definite information is thus obtainable show an average rental of about \$500 per annum each. It will thus be seen that the income of an average family is likely to be anywhere from \$5,000 to \$10,000 per annum, while some of them are much more.

HOPELESSLY IN DEBT.

Such is the improvidence of many of these individuals, however, that they have made little or no advance in material welfare. Many of them are hopelessly in debt, and there seems no prospect of getting them out of that situation unless something can be done by which their lives of idleness and extravagance can be modified through Government intervention and control of their expenditures. They have the vices of the idle rich as the result, not so much of viciousness as of incompetency. The Indians have become the prey of designing men and women, many whites of both sexes having intermarried into the tribe for the purpose of securing the pecuniary advantages that could thereby be derived. In many instances these white people have at first been employed in some capacity, they being glad to accept positions for the opportunities that would thereby be afforded for them to carry out their matrimonial schemes. Naturally only the least intelligent and refined persons are attracted to such surroundings, so that the influence of such people upon the Indians in the main is absolutely bad.

INDIFFERENCE OF CHURCH PEOPLE.

It is deplorable and discouraging to observe the almost entire lack of a sense of responsibility for the Indians and their social uplift which exists in the white communities with which we came in contact. Ministers of churches and other similar persons in Pawhuska appeared to have no feeling whatever regarding what they might do to help the Indians who were located so closely to them. If some method could be adopted by church organizations or other bodies by which the social conscience of their own members in the Indian country could be aroused and they spurred on to do something concrete for the benefit of the Indians, if only to get into a sympathetic and helpful attitude toward them, I believe enormous good would ensue. This applies not only to the Osage but to every tribe in the whole of the United States.

NUMBER ON THE ROLLS.

No discussion of the conditions among the Osages can be fully understood without an appreciation of the very great differences that exist between the different members of this tribe. When these Indians were allotted under the act of June 28, 1906, the names of

2,229 individuals were included on the rolls. Of this number about 370 have since died. In June, 1916, there were 2,230 shares of annuities paid quarterly.

The total number of these Indians under Federal supervision June 1, 1916, was 2,195. Of this number, 1,357, or considerably more than one-half, were classed as mixed bloods and the balance of 838 as full bloods. Broadly speaking, the full bloods are uneducated in the ways of the white man as respects their ability to conduct their business affairs. A very considerable number of them can not speak English, and but few can read and write in that language. They appear to be in many respects very trustful of those in whom they have confidence, and in certain directions are easily led. Mixed bloods, on the other hand, are in a very great many instances shrewd business men of ability, and as competent to conduct their affairs as other residents of the United States. Yet under the allotment act of June 28, 1906, all are treated exactly alike. The total individual and tribal property are valued by the Indian Bureau at \$23,109,432, or a per capita of wealth of \$10,528. Exactly the same amount of supervision is extended by the Indian Office to the share of the lawyer, the real-estate agent, or the bank official as is extended to that of the uneducated man speaking little or no English, whose method of life is far from civilized, and who has no idea whatever of what the real value of money is. This situation can not but result not only in injustice but also in much dissatisfaction, and, accordingly, the tribe seems to be divided into two parties, the lines of cleavage being largely those of the separation of the full bloods from the mixed bloods.

TO SECURE HARMONY.

As the result of such observations as I was able to make, there would seem to be no reason whatever for this grouping together of all of these Indians. If the property of the mixed bloods were to be handed over to them at once, and they allowed to do what they pleased with it, and all of the efforts of the administration of Indian affairs should be bent toward protecting and training the full bloods, I think there can be no doubt but that in the long run more substantial justice would be done and the Indians would be placed in a position where there would be much more harmony of feeling among them. Under existing conditions of law, however, this is impossible and further congressional enactment is necessary to authorize such a course to be pursued.

These conditions are still further emphasized by the provision of the act of 1906, which required the segregation of the Indians in three principal town sites—Pawhuska, Hominy, and Gray Horse—and setting apart tracts of land at each one of these points specifically for Indian villages. The result is that the whole tendency has been to gather the Indians together at these towns instead of encouraging them to live on their allotments which, in many instances, are capable of cultivation. The recent policy of the Indian Bureau to bring every influence to bear upon the Indians to move onto their allotments can not be too highly commended. The more the demoralizing influences of these villages can be broken up the better it will

be for the future of the Osages. It is a hard problem at best to arouse their interest in remunerative employments which will make them self-supporting when there is no need from one standpoint for them to work. If their conditions are to be improved, however, everything must be done which is possible to remove them from surroundings calculated to encourage them in continuing in their present habits of idleness.

MONEY SPENT FOR JOY RIDES.

The impressions produced upon the visitor by the pretty little city of Pawhuska are perhaps different from what would be secured anywhere else in the United States. There are about 5,000 people resident there, all well housed and comfortable looking, whilst the business section of the city is well built with substantial business blocks showing the inherent evidences of wealth. Yet one looks in vain for any manufacturing activities or for much that looks like wholesale business or other operations which would seem to justify a town of the size and apparent wealth of this one.

Many residents frankly told me that the whole community lived off of the Indians. This seems an extreme statement and can hardly be credited in its fullness, although there was much to indicate that there is a good deal of ground to sustain it. What is most impressive is the fact that it seemed as though the community was filled with Osage Indians who were having series of continuous joy rides. Automobiles were everywhere filled with them, and so confirmed has the motor habit become that many of them will not walk two blocks to go from one store to another without hiring a motor for the purpose. Doubtless the white man has been quick to see the pecuniary returns which could be thus secured and, whether by a combination or otherwise, rates for transportation seemed to be high, even when compared with the ordinary method of registering employed by the automatic dials of the taxicabs of our large cities. A couple of dollars for two passengers for three blocks seemed to be considered a not exorbitant charge.

OLD AND YOUNG SPENDTHRIFTS.

The Indian village is about a mile from the business section of Pawhuska. When the jitney craze was at its height an enterprising liveryman thought that he saw a good business opportunity and put in jitneys to run out to the Indian village. The undertaking was a quick failure. No Osage Indian would demean himself by riding in a cheap public vehicle of that sort. He would far rather pay a dollar or more and ride in state alone, or with a friend or two, each of whom paid the same, than to travel in the same company but with the stigma of paying only a dime for the round trip. The fact that the automobiles were identical had no influence.

At the time in June, 1916, when I was in the Osage country, there had recently been an annuity payment and everyone had plenty of money. Doubtless, as that date sunk further into the past, the amount of joy riding would be proportionately decreased, as the money then secured all would be expended. In fact, as before stated,

the full bloods particularly have little or no appreciation of the worth of money, and I was informed it was not unusual for parents to give their children \$20 notes at a time for spending money. I saw one little girl go into a drug store and buy a glass of soda water, handing the clerk a \$20 bill in payment and, with her hands full of change, leave the store headed straight for the moving-picture show across the street. Expensive jewelry is also bought by the children without regard to its cost or appropriateness, while it is stated that more expensive French ribbons are sold in Pawhuska than in any town in the Southwest. Of course, the origin of this extravagance is in the very large sums of money which are payable to these Indians and their entire lack of training in the ability to use them with discretion. It certainly is a strange comment upon the policy of the American people that this tribe should have been driven from its valuable lands in Kansas into what was supposedly a tract for which the white man could have no use and that then, through the fortuitous discovery of oil and gas thereon, the tribe should be in a position of having the greatest per capita wealth of any known separate race in the world.

THE TRADE SUPERVISOR.

Some years ago there was in operation a system by which, under the direction of a trade supervisor, the Indians might designate the particular stores or traders with whom they wished to deal and, by a card system, the agency office kept track, not only of the prices paid by the Indians but also of the total amounts which they were expending, the agency practically guaranteeing the payment of the accounts up to 60 per cent of the next quarterly annuity payment, the balance of the amount being paid to the individual Indian in cash. This system, according to all accounts, worked very well, and if something of that sort could be again carried out, I believe it would be greatly to the benefit of the full bloods. There appears to have been no real dissatisfaction with this system, and it was abandoned, seemingly, because of internal jealousies existing several years ago among the clerks then employed at the agency, most, if not all of whom no longer are employed there, I believe.

As heretofore intimated, I believe that the mixed bloods should be entirely relieved from all governmental supervision, except the usual and reasonable restrictions to be found in any civilized community respecting shares of minors.

OIL AND GAS LEASES.

It is impossible for anyone not having an intimate knowledge with regard to oil and gas leases and the royalties properly payable therefor, to pass a final opinion on the very technical points which are involved in the recent negotiations carried on by the Secretary of the Interior, the Commissioner of Indian Affairs, and the Superintendent of the Osage Agency having to do with the bonuses and the rates of rental to be paid for the oil and gas privileges from the Osage Reservation. Taken as a whole, the full bloods are entirely satisfied with the business methods adopted by the Government in connection with all of its transactions and with the sums secured. From the reports

that I found in the Oklahoma papers of other analogous sales at about the same time, there would appear to be no doubt but that the price per barrel received by the Osages is at least equal to, if not greater, than any other considerable sale made up to the present time, and the royalties for gas are also on a very high basis.

Again the dissatisfaction has been on the part of the mixed bloods, and it would seem as though their attitude had been formulated by certain agitators who were unsuccessful in so shaping affairs that they would be able personally to secure some undue advantage. Some of these men were most bitter and extreme in their denunciation of the high Government officials mentioned above, but in no instance did they appear to be able to cite any good authority for their feelings. I believe that every true friend of the Indian is to be congratulated upon the straightforward and advanced business methods adopted by Secretary Lane in connection with these negotiations and that the future will prove that his course has been such as to secure for the Indians the very highest possible price for their product.

FUTURE OIL DEVELOPMENT.

A consideration of the future, however, is necessary in order that the further development of the unexplored portion of the Osage Reservation may be carried on for the benefit, not only of the Indians, but for that of the American people as well. So far only about one-third of the Osage Reservation has been prospected for oil and gas, which leaves an area of several hundred thousand acres which have, it is believed, unlimited supplies of these great natural resources awaiting development. Under the act of 1906, for a period of 25 years from that date, all these minerals are tribal property. In 1931, however, they pass to the owner of the surface unless Congress should otherwise direct.

As part of the great scheme of conservation of natural resources which is so vital to the American people, it would seem as though this undeveloped field, so far as is known the largest oil and gas field now in existence anywhere which can be handled as a unit, and probably of such value as to stagger the imagination, should be conserved for the future needs of the Nation, particularly as a source of supply of oil for the Navy. Again congressional action will be necessary, but if the trust period at once should be extended for a further period of 25 years, and for the present all further exploration for oil and gas in the western section should cease, except such as may be carried on by the United States Government itself, there would seem to be little doubt but that there would be conserved for the future needs of the Nation a supply of oil which would prove invaluable. By such a course the existing property rights of the whole tribe will be protected, the oil and gas being tribal property, and the United States Government taking over this field would make proper compensation to the tribe therefor.

This is a matter of great immediate importance, for it is only by action at once on the part of the Government that further exploitation for the benefit of private interests in this now undeveloped area can be prevented. It would appear that the very large use of oil as a fuel for seagoing vessels in the near future is almost without

question, and that use seems likely to increase rather than diminish. With the growth of the Navy of the United States and our shipping interests, we can not be too quick to avail ourselves of such an opportunity as is here afforded.

OSAGE INDIAN BOARDING SCHOOL.

According to the school statistics of November 30, 1915, the number of children among the Osages were divided as follows:

Enrolled in reservation Indian schools.....	128
Enrolled in nonreservation Indian school.....	19
Enrolled in mission schools.....	32
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Total enrolled in Indian schools.....	179
Enrolled in public schools on the reservation.....	389
Enrolled in public schools off the reservation.....	117
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Total enrolled in public schools.....	506
Enrolled in private schools.....	74
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Total enrolled in Indian and public schools.....	759
Excused for various reasons.....	116
No report.....	28
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Total number of pupils.....	903

Most of the Indians live in the three principal Indian villages at Pawhuska, Gray Horse, and Hominy. There are certain local school facilities which are supposed to be open to them in the district schools; there is the St. Louis School for Girls, a denominational boarding school near Pawhuska, and the St. John's School for Boys, also under the auspices of the Roman Catholic Church, which, however, has been closed. There are no Government schools except one at Pawhuska, where is located the Osage Boarding School, for which provision was made by the act of Congress of June 28, 1906. By the limitations of that act, unless there is further congressional enactment, this school must be closed January 1, 1917. The annual cost of conducting the school is about \$35,000 a year, paid out of the funds of the Osages.

The school is located on high ground overlooking the city of Pawhuska; and there are several excellent buildings, including separate dormitories for the boys and girls and a schoolhouse, all built of stone, as well as several cottages for the school employees. On November 30, 1915, there were enrolled 128 children, which makes a per capita cost of about \$273 on the basis of the annual cost of \$35,000.

INDIANS DIVIDED ON SCHOOL.

Again, with regard to this school, as with so many of the other important interests of the tribe, the Osages are hopelessly divided. The full bloods, almost to a man, are heartily in favor of the school and its continuance being authorized by an act of Congress, while a very considerable portion of the mixed bloods are absolutely opposed to it and desire that it shall be discontinued as soon as possible.

In the past there were what seems to have been some very proper criticisms of much that went on at this school. The conditions which

at that time invited criticism do not exist at present, as under the present efficient conduct of the school it has improved in every respect. Accordingly, its shortcomings in the past are not in point when urged at this time. The Indian Bureau never approved of these conditions, and recently the conditions complained of have been remedied. The principal argument employed by those who are opposed to the school is that of expense. The annual per capita cost of about \$275 is not excessive for a boarding school. The gross expense of \$35,000 is divided among 2,230 annuity shares, making less than \$16 per annum, each which surely is a very small sum when compared with the total wealth of the tribe, which is placed by the Commissioner of Indian Affairs as being \$23,109,432. Should the school be discontinued and the plant divided up into building lots, as its opponents desire, the amount produced by sales would be equally insignificant.

A REAL ESTATE DEAL.

The principal buildings, it is stated, could be used one for a city hospital, another for a high-school building for the town, and the other for similar civic purposes. It is hard to see, however, how any very large sum of money could be paid for the buildings to be used for such purposes, and it is problematical whether the local authorities would be willing to purchase them at any fair price. There would be left, however, some 40 or 50 acres of land which might be developed into building lots. Assuming the lots to be 50 by 140 feet, or five lots to the acre, an outside value, according to the best opinion that I could secure, would not be over \$250 a lot on the average. Probably this figure is high, so that \$60,000 would be an outside value for the land, or about \$27 per capita for enrolled Osages. It is extremely doubtful if the land could be sold for building lots, for there is much vacant property close at hand now in the market for development and which has remained unimproved for a number of years, notwithstanding efforts to market it in building lots by interested capitalists. One of them told me he would be most happy to sell lots adjacent to the school site for what he had paid for them some years ago, making no allowance for interest and taxes, his figures being no higher than I have named above.

DOUBLE-TAXATION ARGUMENT.

Another claim made in opposition to the school is that as a number of the members of the tribe pay local school taxes they are really subject to double taxation. Whatever may be the force of this argument, those who are objecting on this account are in no different position from a very large number of white people who, while paying school taxes, send their children to private schools or universities. It was generally admitted, even by those who are opposed to the school, that last year the Osage Indian Boarding School was a good one, in every way a vast improvement on what it formerly was.

It will be observed that all the objections to the school are based upon monetary considerations; none of them go into the merit of the school itself, the work it is doing, or the necessity for a boarding school. I talked to a large number of full bloods at each of the three

villages where most of the full bloods reside, and there was not a dissenting voice among them as to the very great importance of the continuance of the school. Many of the better class of mixed breeds are of the same mind. The full bloods and numerous mixed bloods bring forward several very cogent reasons in support of the school. Their reasons may be briefly summarized as follows:

THE FULL BLOODS' SIDE.

First. As at present organized, the school is so conducted that it meets the requirements of the Osages. This was universally admitted. I heard but one criticism of the actual conduct of the school. It was that a child, not an Osage, had been enrolled there the past year. In this particular case a little girl, a waif, had been taken care of by an Osage family as a matter of charity. They had finally adopted her. These Osages had no children of their own of school age and their adopted child was admitted into the school. Surely this can not be considered a serious cause for criticism, although it gave a basis for the claim that children who were not Osages were being educated there. In reply to this it was further claimed by the full bloods that many of those who are opponents of the school are descended from parents who really have no Osage blood at all, but who were themselves received into the tribe a generation or two back in order to prevent them from starving.

Second. The Osage Indian Boarding School is organized so as to meet the needs of these Indians, as the district schools which are adapted to white children do not meet them.

The Osages are shy, and for this reason the children, especially when in competition with white pupils, appear dull. Experts in educating Indians can do more for them and encourage them to take their proper place. The moral advantage for them of the boarding school is also most important. The Osage parents are indulgent, and the children attending day schools in their off hours frequent movies, pool rooms, and other similar places to a demoralizing extent, while at the boarding school their play hours are supervised properly.

Third. The attendance of the Osage children at day schools is almost impossible to enforce. Their parents are frequently visiting and feasting at different points on the reservation, often for several weeks at a time. If the children are free to accompany them the school work is hopelessly interfered with. If the children are in the boarding school the school authorities have such control over them as will prevent them from going off without regard to the requirements of school work and a double service is done to the children.

Fourth. It is the present and most admirable policy of the Indian Bureau to have these Indians live on and cultivate their allotments. When this end is accomplished they will be very much scattered and educational facilities for them in the district schools will be much more slender than they are at present.

Fifth. The school provides a home for Osage orphans for whom no other provision is made. Last year eighteen such were enrolled in the school. They were thus insured kind and sympathetic training.

SCHOOL SHOULD BE STRENGTHENED.

Instead of discontinuing this school it would be much better if it could be strengthened and increased in size. On November 30, 1915, there were 903 children reported as of school age and belonging to this tribe. A very large proportion of these might with great benefit be taken care of in this school rather than to be attending no school at all, or with great irregularity going to district schools.

In one respect the course of study in the school seems to be quite out of keeping with the most advanced educational thought of the day, in that a very large part of the manual and industrial training, now so universally in vogue, is omitted. At first sight this appears a very serious defect, but a closer inspection and study of the peculiar circumstances would seem fully to justify the curriculum as adopted. The situation with the Osages is unique; any attempt to force upon them the work usually done in these lines does nothing but spell failure, as both the children and their parents strenuously object to such procedure. For example, when the attempt was made to teach girls sewing or dressmaking they replied that with the ample money that there is at their command they had their white dressmakers employed in the town and they could see no reason why they should do such work. This sounds very much like the expressions one would hear if the same experiments should be tried in some of our fashionable boarding schools where the daughters of multimillionaires are being educated.

The result has been that the present course of study has for the moment at least eliminated teaching in lines that might lead to the sort of feeling above indicated, and by the introduction of certain handicraft and art work, the interest of the pupils has been secured as well as the cooperation of their parents. This can but result in helping them on to better things in the near future. A band has been organized among the boys and there is good reason to hope for much in the future in this respect.

THE ANTILQUOR CAMPAIGN.

That which surprised me the most in the Osage country was the utterly different conditions from anything I had been led to expect in connection with the liquor traffic. So much had been said to me respecting the "drunken laziness of the Osages" and so many stories had been told me of groups of them lying around the streets of their villages or near the railroad stations in drunken stupor that I was prepared to find conditions in these respects exceedingly unsatisfactory. My surprise was great, therefore, to discover that however true such representations may have been as respects the past they are not in the slightest degree justified by present conditions.

The administration of the Indian Office can not be too highly commended for the firm stand it is taking on this subject, for it has resulted in the practical cleaning up of every part of this reservation. During the whole time I was there, out of the several hundred Indians whom I saw, and with many to whom I talked, I found but one who gave the slightest indication of having partaken of intoxi-

cants, and he was not by any means drunk, though somewhat loquacious. He was on his way to Tulsa to attend a white man's prize fight. I heard of but one drunken man—a white man—and he was almost immediately arrested by an officer and taken to the lockup in Pawhuska. The sentiment of the white people in the Osage country seems to have undergone a complete revulsion within the past couple of years, and many of them seem to appreciate now that if whisky can be kept out it leaves more of the Indians' money for other and more legitimate purposes. The key to the situation was the promulgation by Commissioner Sells of his well-known order to the effect that quarterly payments would be withheld unless bootleggers and other similar undesirable characters were completely discounted.

BUSINESS MEN COOPERATE.

As a result of this mandate the business men of Pawhuska voluntarily contributed to a fund which was used in offering rewards for the arrest and conviction of anyone selling liquor to the Indians. About the same time the superintendent of the agency, Mr. J. George Wright, instituted, through his subordinates, the enforcement officers, a strict campaign against all such lawbreakers. The result is to-day that there probably is no place in Oklahoma where the law against the sale of liquor is more strictly enforced and where it is more difficult for anyone, Indian or white man, to secure intoxicants. It therefore may be stated, as a general proposition, that at the present time drunkenness among these Indians is almost unknown, and it is a splendid comment upon what can be done by men who are thoroughly in earnest in this matter and who fearlessly enforce the law, knowing that local public sentiment and the whole force of the United States Government are back of them in their endeavors.

LEMON AND VANILLA EXTRACTS.

There are, however, one or two points which need still to be given attention in this connection. The most important of these is the use of alcoholic flavoring extracts, particularly lemon and vanilla. These extracts are handled in large quantities by grocers and other similar storekeepers, and when Indians buy vanilla extract to the amount of a dozen bottles at a time it must be very evident to anyone that the intention is to use it for other purposes than for flavoring. The recent policy of the Indian Bureau to purchase for the use of the service no flavoring extracts preserved in alcohol is a step in the right direction, and it would seem as though some means might be found by which the sellers of inordinate quantities of the alcoholic preparation after warning might be proceeded against.

In connection with the liquor traffic, however, as well as many other moral influences among the Indians, the great menace is to be found in Tulsa, Bartlesville, and other towns situated just across the borders of the reservation. At these places there is a complete lack of interest in improving the Indians, and in fact it would seem in some of them there exists no desire whatever to help the Osages or do anything else than take measures to get their money away from them through selling intoxicants or in other ways. So long as

these sources of difficulty continue to exist there will be an uphill fight in the enforcement of any restrictive legislation.

PROBATE AFFAIRS.

As respects the administration of estates and other legal transactions among the tribe, the situation seems to be on the whole quite satisfactory, although there is some complaint among the Indians as respects the cost and delay of the probate court proceedings. I believe in the main that these complaints are not well founded, although the Indians may not fully understand all that there is involved. In an ordinary case of administration the total expenses as allowed by the court are about \$150, covering attorneys' fees, commissions, appraisal, and court costs. In guardianship cases the costs are about \$75 per annum. There appear to have been none of the scandals arising from the settlement of estates similar in character to those which have arisen among the Five Civilized Tribes. There may have been delays and there may have been losses, but the instances of crookedness have been few. Most cases are settled and distribution of estates secured within about 14 months from the date of the death of the decedent which, to those who are familiar with the usual course of legal proceedings, seems quite prompt. At the end of four months the heirs to an estate may be determined and a partial distribution made.

One point in the act of 1912 might receive attention. It is the requirement of section 6 that in cases of partition, etc., there shall be joint control by the district judge and the Secretary of the Interior. There is a good deal of complaint that this involves long delay in the approval of sales of real estate held in partition proceedings, oftentimes extending to as much as one or two years. The natural result of this is that bids at such sales are very low, as no one is willing to be in uncertainty as to whether or not he will get a property for such a length of time as that.

Another point in the act of 1912 which should receive careful attention is the ruling that the making of a will approved by the Department of the Interior removes restrictions. Oftentimes incompetents devise land to incompetents, and this construction of the law removes all protection from the latter.

CONCLUSIONS AND RECOMMENDATIONS.

To sum up the conclusions and recommendations which may be deduced from the above report, they would be as follows:

1. That a distinction be made between the incompetent full bloods and the part bloods, and that the latter be given their full share of tribal property and be allowed to do with it as they see fit, while greater effort be made fully to protect the former.

2. That the oil and gas of the western portion of the reservation be conserved as an entirety for future use by the United States Government.

3. That the trust period be at once extended for 25 years to 1956.

4. That the Osage Indian Boarding School at Pawhuska be indefinitely continued.

5. That the present efforts to control the liquor traffic be continued and strengthened wherever possible.

6. That the Indians be encouraged to move onto and farm their allotments and, as an effective aid in this direction, that the congressional enactments establishing the Indian villages of Pawhuska, Gray Horse, and Hominy be modified to the end that the number of Indians living in those towns may be materially reduced.

Faithfully, yours,

GEORGE VAUX, Jr.

The BOARD OF INDIAN COMMISSIONERS.

APPENDIX B.

REPORT ON THE EASTERN CHEROKEES, NORTH CAROLINA, BY WILLIAM H. KETCHAM.

WASHINGTON, *February 19, 1917.*

DEAR MR. SECRETARY: The Board of Indian Commissioners, in addition to its ordinary duties, has been inquiring into the conditions relative to the state of progress of the ex-students of Indian schools. This survey, if I may so call it, is in charge of our secretary, Mr. Malcolm McDowell, who, under the direction of the board, is going to Indian reservations to get information for the use of the board, bearing on this and other matters.

Recently he visited the Eastern Cherokees of North Carolina and embodied the information he secured in a report which was presented to and adopted by the board at its recent annual meeting. I was appointed a committee to consider the report and transmit it to you.

I take pleasure in handing you Mr. McDowell's report and would call your particular attention to what he had to say about the possibilities which lie in certain agricultural activities on the reservation in connection with a canning factory.

Cordially, yours,

WILLIAM H. KETCHAM.

HON. FRANKLIN K. LANE,
Secretary of the Interior.

SYNOPSIS OF REPORT.

In his report to Commissioner Ketcham, the secretary of the board shows there are not adequate living quarters for the married employees in the boarding school and even if there were the objections against using them for housing employees are so obvious as to call for the recommendation that eight cottages, at least, be built for them. He found that a field matron is necessary to enable Supt. Henderson to carry out well-devised plans for the further advancement in civilization of these Cherokees, who are the descendants of the Indians who, prior to the Civil War, refused to move to Oklahoma. When the Commissioner of Indian Affairs visited the reservation he was struck with its agricultural potentialities and the

secretary of the board found that the climate, soil, and accessibility to near markets endowed the reservation with possibilities in the way of truck farming supplemented with a canning factory which ought to be early developed. He, therefore, suggests that a field matron, who is qualified to teach home canning to the Indian women, be detailed to this reservation with the idea that this domestic industry would lead to the establishment of a large commercial canning factory on the reservation.

Supt. Henderson has built a hospital which, though small, is modern in its lay out and equipment. There is need of a physician who has had surgical experience in connection with hospitals on this reservation.

The Eastern Cherokees, as a whole, are well advanced in civilization. The returned students on this reservation are generally progressive. There is no place, except the main dining room in the school, for these returned students and their friends to hold social meetings, lyceums, etc. The school has no gymnasium and as there is need of a social center and also a gymnasium the secretary of the board has suggested that a gymnasium, with facilities for an assembly hall, be built, also an industrial building for the boys and a new horse barn. As the Indians are becoming more and more interested in agriculture there should be more land available for the school farm. The secretary of the board, in his survey of the reservation, found that over 200 children lived in places so remote as to practically make the day schools inaccessible to them. He therefore strongly recommends that the reservation boarding school be enlarged so that it can take care of these children.

APPENDIX C.

REPORT ON TUBERCULOSIS AMONG THE CHOCTAW AND CHICKASAWS OF OKLAHOMA, BY WILLIAM H. KETCHAM.

WASHINGTON, *January 1, 1917.*

DEAR MR. VAUX: In compliance with your letter of October 6, 1916, I have inquired into the prevalence of tuberculosis among the Choctaws and Chickasaws of Oklahoma and have the honor to submit in brief my report as follows:

In 1897 I was appointed missionary to the Choctaws and remained with them continuously for four years. During these years I visited various sections of the country and came in contact with large numbers of Indians. While the Choctaws at that time did not appear to be a very hardy race and occasionally cases of tuberculosis in one or another form were in evidence, the disease could not be said to be common or the occasion for any particular anxiety.

Since 1901 I have visited them very nearly every year, traveling extensively among them and spending considerable time in their midst. I have noted the steady increase of the dread disease among them.

In recent years I have been struck with alarm by the inroads it is making, possibly due in part to the coming of the Choctaws from Mississippi and the unfavorable conditions under which they lived

during the first year after their removal. In 1902, and again in 1916, I visited the Choctaws in Mississippi. On both occasions I noticed a number of cases of tuberculosis, and I have become imbued with the idea that ordinarily the adult Choctaw of Mississippi dies of tuberculosis, or possibly of pneumonia, before tuberculosis has run its full course.

Naturally the Mississippi Choctaw is not in so good condition physically as the Oklahoma Choctaw. For years he has been without proper nourishment; and the removal to Oklahoma with its hardships and the consequent changed conditions, climatic and otherwise, has made him particularly susceptible to the disease. While tuberculosis is increasing among the native Choctaws and Chickasaws of Oklahoma, undoubtedly it is far more prevalent among the removed Mississippi Choctaws.

ALL OKLAHOMA TRIBES AFFECTED.

After the receipt of your letter I gave special attention to the question, visiting many Indian families and making inquiries of all classes of people, particularly physicians and Government officials. The testimony received from these sources, which I have verified by actual observation, leaves no doubt as to the serious condition that to-day exists among the Choctaws and Chickasaws. Government officials invariably advised me to extend my inquiries to "all" the tribes of Oklahoma, as all suffer from the ravages of tuberculosis. While this is no doubt the fact, it was futile to attempt so great a task. On the supposition that the most serious condition is to be found among the Choctaws and Chickasaws, I believe it good policy, without neglecting other tribes, vigorously to attack the most desperate problem first, and to extend the campaign as soon as may be to every point of infection.

SOME STARTLING FACTS.

I have before me official reports, kindly furnished by Hon. Gabe E. Parker, United States superintendent to the Five Civilized Tribes, and from the United States Indian field clerks among the Choctaws and Chickasaws. In a letter transmitting these reports Mr. Parker says:

I am indeed pleased to know that you are giving health conditions your personal and active consideration. No other phase of work in the Five Civilized Tribes has been so sadly neglected and no other phase warrants and demands immediate and serious attention as does the health condition.

The following excerpts from the reports of the field clerks speak for themselves:

I find a great number of Indians who are in the first stages of tuberculosis, and if there is not something done to compel the Indians to live in a more sanitary way it will only be a short time before there will be twice the number of cases than now exist.—Ben. F. McCurtain (Madill).

It is believed that about one-tenth of the allottees here are affected with tuberculosis in some form or stage, and others susceptible.—W. E. Foltz (Idabel).

It is a fact, from our observation, that health conditions among our Indians are deplorable, but how are we to find men to remedy the situation with the very inadequate means at our disposal?—C. R. Clements (Hugo).

I am of the opinion that 40 per cent of the restricted class of Indians are affected with tuberculosis in some form. As to the various stages of this disease I have no knowledge. The allottees as a general thing do not make this known until they are in their last stages and it is impossible to give you any information along this line.—William H. Reynolds (Atoka).

I beg to advise that there are in this district between 1,000 and 1,200 minor and adult restricted Indians. Of this number 400 are Mississippi Choctaws and of the 400 Mississippi Choctaws in this district I believe fully 50 per cent are afflicted with tuberculosis in some form.—L. P. Patchell (Pauls Valley).

I have other reports before me containing lists (in some instances lengthy ones) of sufferers from tuberculosis. While these reports are somewhat optimistic, they are not nearly so thorough as the ones from which I have quoted.

DISCOURAGING FEATURES OF SITUATION.

A most discouraging feature of the situation is the entire lack of any precaution to prevent the propagation of the disease. In bad weather the afflicted and the sound generally sleep in the same room—quite often a very small room with a great many occupants. The full bloods usually retire to sleep without removing the clothes they have worn during the day; they make indiscriminate use of clothing and bedding and of uncleaned drinking cups. They expectorate promiscuously and ignore all admonition in this regard. The Indians have not the slightest idea of the need for segregating those afflicted with contagious diseases. The sick are found in their church assemblies and in all their gatherings. So far as can be observed they take no precautions whatever against contagion, and personal experience leads me to believe it will be next to impossible to impress upon them the slightest rudiments of prevention.

Anyone who has seen a mother chew the food for her babe can realize what this means in the case of a mother far advanced in tuberculosis. I have seen a husband suffering from tuberculosis of the throat take a cigar from his mouth and without cleansing it in the least place it in the mouth of his wife. The people in question, while uneducated, were honorable, industrious, and highly esteemed by their white and Indian neighbors. Details, such as these, although unpleasant, impress upon one the gravity of conditions confronting the Indian Department.

It is to be regretted that I can not furnish photographs of some of the distressing scenes that have been imprinted on my memory. One of these is a little two-roomed shack in which live (or lived) a family of seven. On a log near the door is sitting the mother, weak and emaciated, a sight to move one to pity, and, seated by her, one after the other, are four little girls all more or less affected by the disease; standing near, is a boy, probably of 16, reduced to a skeleton. The only sound one in the family is the husband. Thus far he has escaped.

One can come upon scenes such as this in all sections of the country. These poor little children will attend the neighboring school, and the whole family at times when they are able to move about will mingle with others at camp meetings and at picnics. They know nothing of the requirements of hygiene or sanitation, and even if they were aware of such requirements their condition and the customs of their people would make compliance with them

impossible. It is greatly to be feared that it is already too late to save their neighbors, both Indians and whites, from contamination. Probably in a short time there will be few homes, church buildings, or schoolhouses but what will have been invaded by the deadly tubercular bacilli and become foci of infection.

RELIEF MEASURES.

Government representatives, physicians, and others are beginning to realize the danger not only to the Mississippi Choctaws but to the native Choctaws and Chickasaws and the white citizens of the State, but they are fighting against great odds and with unsatisfactory and inadequate weapons.

For some time it has been the practice to sell a portion of the lands of sufferers and with the proceeds send them to southern Texas or New Mexico and possibly Arizona. This is a slow process as it involves the untying of a good deal of red tape. In some instances these patients have improved, and I know of one who, although he did not remain away very long, returned and is still living with his family. However, he is again in decline, and it is only a question of a short time when he will be laid away, soon to be followed by his wife and children and grandchildren.

An Indian sent by himself, or even two or three Indians sent together, to Texas or New Mexico or elsewhere will be ill at ease, and after a week or two will insist on returning home. It is exceptional that an adult Indian can be made sufficiently contented in a strange country to stay there the length of time required for beneficial results.

THE TALIHINA SANITARIUM.

Six years ago the Choctaws, noting the increase of tuberculosis among them, took the first step toward establishing a "tubercular sanitarium." On December 14, 1911, the last Choctaw General Council passed an act (see Exhibit A) appropriating \$50,000 for such a sanitarium. At the time of my investigation, in 1916, the sanitarium had not yet been completed.

At the request of leading Choctaws, and in company with Gov. Locke, ex-Gov. Dukes, and others, I visited the unfinished sanitarium, and found an admirably selected site and a very fine and well-appointed building nearing completion. However, I was informed that the building was intended not for a tubercular but for a general hospital. When I called attention to the fact that in making the appropriation the Choctaws had had in mind a hospital for tuberculosis, I was told that cottages would be erected later for tubercular patients.

As this would mean still further delay, I at once wrote the honorable Commissioner of Indian Affairs urging the immediate putting up of tents for tuberculous patients, and that the hospital be opened at the earliest possible moment. I also urged the appointing of a Choctaw official conversant with the language who could act as interpreter for physicians and nurses, could make the patients feel at home and thereby induce them to remain at the hospital long enough

to benefit by the treatment and the mode of life required there. To my mind this Choctaw (or Chickasaw) official is necessary to the success of the sanitarium. I at once received a wire from the honorable commissioner to the effect that the sanitarium would soon be in operation.

RECOMMENDATIONS.

My recommendations for controlling and eliminating the plague of tuberculosis prevailing among the Choctaws and Chickasaws are as follows:

1. *The Talihina Sanitarium.*—This sanitarium should be devoted particularly, if not exclusively, to tuberculosis. It offers the principal and immediate remedy for existing conditions. It is centrally located in the home country of the Indians, and if it is properly conducted Indian patients may be induced to reside there, where they will be properly clothed and fed and will receive the medical and surgical attention they need. They can be provided with religious services, and open-air classes can be carried on for children so that they may not grow up in ignorance. The most attractive features of Indian life, such as are not at variance with hygienic requirements, should be preserved so that Indian patients may be content to remain indefinitely.

I am convinced that this can never be accomplished unless some Choctaw or Chickasaw official is attached to the sanitarium. If these conditions can be realized, doubtless a number of the afflicted will be cured, others will greatly improve, and the sufferings of those who can not otherwise be benefited will be greatly mitigated.

The chief advantage the people in general will derive from the sanitarium will be the protection resulting from the segregation of the afflicted it will make possible. Segregation is the only thing that will eradicate the disease from these tribes. The sanitarium will become a village of considerable proportions if all the afflicted are gathered into it, but this is precisely what should be done; and if necessary some method should be found (by legislation if need be) to require tuberculous patients to remain in the sanitarium, provided, of course, it is properly conducted and the physical and spiritual needs of the colony are adequately cared for.

2. *Change of climate.*—It may be advisable in some instances in which there are fair chances of a cure and in which the individual is not closely bound by family ties, to send patients to southern or western Texas or to New Mexico. As to children, these patients, as had already been done in some instances, can be placed in hospitals and required to remain so long as there is need. As for adults who can not be controlled so easily, there should be some way of colonizing them, as it were, under the supervision of some reliable Indian so that they may have the companionship of one another and be induced to remain a sufficient length of time. It is folly to spend an Indian's money sending him to some distant State when it is practically sure that in two or three weeks he will become restless and return without having been benefited in the least.

3. *Education.*—A campaign of education in reference to tuberculosis should be carried out thoroughly in every Indian community. It will take years before such a campaign can be expected to accom-

plish much, but if any considerable results are to be realized, it should be begun at once and carried on persistently and insistently.

The necessary literature should be translated into the Choctaw language and distributed at once. This should be read systematically to the children and to the people generally in all schools and other places of assembly. In this campaign every religious organization should join. In it every local Government official, every physician, every school teacher, every minister should take an active part, not spasmodically but systematically.

In a great many instances the Choctaw language will be the only vehicle which can convey to the minds of the people the knowledge they should have of the disease—of its origin, of its propagation, and of the means of preventing it. It must be taken for granted that not one or two warnings or instructions will accomplish anything at all. The subject must be put before the people in season and out of season, week after week, year after year. Incidentally I would suggest that stereopticon lectures be given at times in every schoolhouse. The Indian mind will not easily yield to the knowledge of the germ that reaches it through the medium of the ear. The information that comes through the medium of the eye will make the strongest impression.

Another thing to be considered is that the Indian does not shrink from contact with the disease, nor from contagion or death as the white man does, in fact, my observation among the Choctaws rather leads me to believe that all these things have a sort of fascination for them and thus the difficulty of saving them from themselves is augmented. The segregation of the afflicted and a ceaseless campaign of education among the people is an absolute necessity. By these means only can we hope to rescue the Choctaws and Chickasaws and the whites among whom they live from the ravages of tuberculosis.

WILLIAM H. KETCHAM.

HON. GEORGE VAUX, Jr., *Chairman.*

EXHIBIT A.

AN ACT Creating a sanitarium.

Be it enacted by the General Council of the Choctaw Nation in regular session assembled.

SECTION 1. A sanitarium for the Choctaw and Chickasaw tubercular patients is hereby created and shall be known as Choctaw-Chickasaw Tubercular Sanitarium, which shall be erected in that part of Oklahoma formerly known as the Choctaw Nation.

SEC. 2. That the Secretary of the Interior is hereby authorized to designate and set aside a tract of land not to exceed four sections from the unallotted land and timber reserve belonging to the Choctaw and Chickasaw Tribes of Indians for exclusive use and benefit of said sanitarium.

SEC. 3. That the sanitarium shall be under the direction and supervision of the Secretary of the Interior provided that one person connected with the local management shall be a Choctaw or Chickasaw Indian by blood, appointed by the Secretary of the Interior, recommended by the principal chief of the Choctaw Nation, so long as the tribal government shall exist and thereafter in such manner as the Secretary of the Interior sees proper.

SEC. 4. That \$50,000 be used, is hereby appropriated, and shall be set aside, out of any funds now to the credit of the Choctaw and Chickasaw Indians not otherwise appropriated.

SEC. 5. That this act shall be in full force and effect from and after its passage and approval.

Read and Interpreted; passed the senate and referred to the house October 13, 1911.

O. ANDERSON,
Recording Secretary.

G. W. DUKES,
President of Senate.

Read and Interpreted; passed the house October 14, 1911.

HOLTON HICKS,
Recording Secretary.

S. E. COLE,
Speaker of House.

Approved October 14, 1911.

V. M. LOCKE, Jr.,
Principal Chief, Choctaw Nation.

**SUPPLEMENTAL REPORT ON TUBERCULOSIS AMONG THE
CHOCTAWS AND CHICKASAWS OF OKLAHOMA, BY WILLIAM
H. KETCHAM.**

ST. LOUIS, *June 24, 1917.*

DEAR MR. VAUX: I beg to add to my report on tuberculosis among the Choctaw Indians the following information and recommendations relative to the tubercular sanitarium which has been established at Talihina, Okla., for Choctaw and Chickasaw Indians:

I visited this institution on May 23, 1917. It is conducted creditably. From the superintendent down the efficiency of the management is in evidence. The patients, 20 in number, almost exclusively young people, and for the most part girls, appeared to be contented and even cheerful. I was told that after July 1 the number will increased to 60.

The superintendent was absent, but from what I could observe the sanitarium is decidedly a success in so far as children and young people, particularly girls, who have been accustomed to school discipline, are concerned. The larger boys at times become exceedingly restless, and it may be very difficult, if not impossible, to prevent them from leaving prematurely. Among the patients I noticed only two or three middle-aged women but no men other than youths.

If the sanitarium is to benefit school children only, the object for which it has been established will not be realized. In my report I pointed out that the only way to check the spread of the disease is by segregating such persons as are a menace to their associates, and these are by no means confined to girls and children of school age. If the aims for which the sanitarium has been established are to be attained, the following facts and recommendations should be given serious consideration:

1. At present the sanitarium consists of but one building, in which both patients and officials reside. It can not be expected that sound people, especially children, should constantly live in the same building with tubercular patients.

I recommend that cottages be built for employees so that their families and they themselves, when off duty, may live apart from the patients.

2. The living together in the same building and the sharing of the sleeping porches with the children will keep the older Indians,

particularly the men, from the institution. There are two sleeping porches, one for men and one for women. These porches are spacious and well adapted to their purpose; but the older people demand privacy. Moreover, the building is of a type for which they have little liking. As the farmer boy is more comfortable lounging about the barn than when shut up in the parlor, just so is the grown-up Indian uncomfortable in a building such as the Talihina Sanitarium.

No tents or cottages have been put up, and until such accommodations shall have been provided, it need not be expected that the older Indians will be content to remain at the sanitarium.

I recommend that a few tents or cottages, or both, be put up as soon as possible.

3. There is reason to believe that the accommodation of tents and cottages will not suffice in many instances to induce the older Indians to remain at the sanitarium. Under present conditions the older patients enter and leave at will. While there, they will be visited by their immediate families and friends; in many instances the visitors will wish to remain indefinitely and will expect to be fed at the sanitarium, and, if they are not indulged in these matters, they will take their sick home with them. Thus the institution will be under considerable expense and subject to the caprice of thoughtless and misguided people.

If the segregation of tubercular sufferers could be enforced by law, the visiting of relatives and friends could be regulated. The visitors could be assigned a camping ground, be required to bring their food with them, and be otherwise supervised.

Before leaving Washington I conferred with the honorable Commissioner of Indian Affairs on the question of obtaining cooperation in this matter on the part of the State of Oklahoma.

On leaving Talihina I had a conference with the governor of Oklahoma. He manifested keen interest and assured me that if legislation should be required, there would be no difficulty in getting favorable action by the legislature.

I discussed the question with a prominent Oklahoma attorney, who suggested that probably the police powers of the State were ample to enforce segregation and that further legislation would not be necessary.

Gov. Williams advised me to confer with the State commissioner of health, Dr. John W. Duke, of Guthrie, Okla. I did so, and found him thoroughly awake to the situation. He suggests that he might issue an order to quarantine tubercular persons in certain districts and in this way reach Indians who have hospital facilities. He assured me that everything possible will be done to assist the Federal authorities. I am convinced that the Oklahoma State officials will in every way cheerfully cooperate with the Indian Office.

If this cooperation is brought about, I realize the great difficulty the Commissioner of Indian Affairs will face will be the lack of adequate funds to meet the demands. All sincere friends of the Indians will here recognize an inspiring opportunity to exert themselves in assisting the commissioner to secure a commensurate appropriation from Congress.

In the event that the suggestion of Dr. Duke is found feasible it occurs to me the Commissioner of Indian Affairs might designate

the localities where the disease is more prevalent and thus gradually have the quarantine widened as he finds resources with which to provide for the patients assembled in the sanitarium.

This is only a very crude suggestion, but I believe it contains the germ for the satisfactory working out of the problem.

I recommend that steps be taken to bring about the cooperation of the Oklahoma State officials in enforcing the segregation of such tubercular sufferers as are clearly a menace to the communities in which they live.

Respectfully submitted.

WILLIAM H. KETCHAM.

HON. GEORGE VAUX, Jr., *Chairman.*

APPENDIX D.

REPORT ON THE EUFAULA BOARDING SCHOOL, EUFAULA, OKLA., BY WILLIAM H. KETCHAM.

WASHINGTON, *February 20, 1917.*

DEAR MR. VAUX: I beg to submit the following report on the Eufaula Boarding School, which I visited in September, 1916:

The Eufaula Boarding School (for Creek girls), one of the three Creek training schools, is located just outside the corporate limits of the town of Eufaula (old Muskogee, or Creek Nation), Okla. While I had not visited this school since it passed from tribal to Federal control in 1899, it has always had a peculiar interest for me. I was a resident of the Muskogee Nation at the time it was built, in 1892, and saw the foundation laid.

The school was built by the Muskogee Nation and conducted by the tribal government until 1899 when it came under the general supervision of the United States officials. In 1906, by virtue of the act of April 26 of that year, the United States Indian Office assumed full control over it.

While it served its purpose in tribal days, it has been vastly improved since its incorporation in the United States Indian school system.

THE SCHOOL PLANT.

At the present time the school plant consists of 13 buildings crowded together on a 5-acre tract. One large brick structure affords accommodation for the comfortable housing of 112 children (the enrollment being 114; the average attendance, 110), and in it are located the superintendent's office and quarters, clerk's office, two music studios, dining room, kitchen, hospital, matron and nurse's quarters; large and small girls' reading and recreation rooms. There are also a school building, commissary with annex, barn, laundry, chicken house, oil commissary, domestic-science building, and employees' cottages.

Recently the main building has been enlarged and equipped with an indirect lighting system, reading tables, and cases for books, which makes possible a room for hospital work other than the nurse's private room, also sitting rooms with individual lockers for large and small girls.

The school is well equipped. During the past four years it has been so improved and modernized that with a comparatively small outlay it can be made up to date in every detail. The buildings are kept in good repair.

Applications are far in excess of accommodations. I am assured the school easily could have over 300 pupils; but to provide room for this large number the entire plant would have to be rebuilt. While this would necessitate considerable expense, once the necessary accommodations are provided the increased number of pupils could be carried with a slightly increased annual appropriation.

SHOULD BUILD EMPLOYEES' LODGE.

In the event it should not be deemed advisable to provide for a larger number of pupils, an employees' lodge should be built, and I am told this can be done at the expense of about \$5,500. The employees for the most part live in cottages, which crowd the campus, necessitating expensive repairs and easily become unsanitary. The lodge would afford adequate bathing facilities and other comforts and conveniences which can not be realized in the cottage system. At present the very small hospital quarters are in the main building. Hence it is impossible for the sick to have the necessary quiet, and the danger of contagion is ever present. Moreover, as there is no guest house, relatives of the children visiting at the school have to be permitted to sleep in the dormitories. It is unnecessary to point out the danger of infection to which this exposes the pupils and the consequent interference with sanitary regulations. If the employees' lodge is provided, one of the cottages can be fitted up for a hospital and another for a guest house.

The laundry is of such a type that it must be rebuilt. I recommend a laundry with up to date machinery for the general laundry purposes of the school and with plenty of space for tubs, ironing boards, drying rooms, etc., as I believe that all girls over 12 should do their own laundry work by hand; any other system is inconsistent with the aims of an Indian industrial school.

The crying need of the school is more land. There is a school farm of about 40 acres situated 2 miles away, but as girls are not taught farming and as the distance makes actual gardening impossible for them, the farm is rented for crop shares and is of little or no benefit to the school. There are vacant lots in plenty around the campus and a sufficient number of these should be purchased so that the school can have spacious playgrounds and ample garden plats and pasture land. These are the pressing needs of the school.

As for the educational features they are all that could be desired for physical, industrial, and academic training. The instruction in and opportunities for music are especially fine. In company with a noted educator I examined the several classes and found unmistakable evidence of efficiency in every department. The school is a model of neatness; so far as my observation goes, the supervisor of education will find no cleaner school among the many excellent institutions under his jurisdiction.

The management is especially to be commended. To Mrs. Gertrude C. Melton, the superintendent, the Creek people and the Indian Office are indebted for this excellent institution.

RECOMMENDATIONS.

1. An employees' lodge.
 2. A new laundry.
 3. The sale of the present school farm and the purchase of an ample acreage contiguous to the school.
- Respectfully submitted.

WILLIAM H. KETCHAM.

Hon. GEORGE VAUX, Jr., *Chairman*.

Following is a letter from Commissioner Sells in reference to the above report:

DEPARTMENT OF THE INTERIOR,
OFFICE OF INDIAN AFFAIRS,
June 8, 1917.

MY DEAR MR. BRADLEY: I have by your reference a report on the Eufaula School, Creek Nation, Okla., recently made by Rev. William H. Ketcham. His generally very favorable impression of the school agrees with my understanding of conditions there.

Funds available for the use of the boarding schools of the Five Civilized Tribes are limited by law, and the allowance for the three Creek boarding schools is not sufficient to support them properly and make necessary repairs and improvements and provide proper equipment after deducting an amount sufficient materially to increase the capacity of the Eufaula School. The advisability of greatly increasing the size of one of the tribal boarding schools beyond that of any of the others is questionable. These schools are all of about 100 capacity.

Heretofore one of the most serious causes for complaint has been the crowded condition of buildings due to a lack of suitable quarters for employees. Plans for an employees' lodge have been approved, and it is expected a contract for the erection of the building will be let before the close of the present fiscal year. This will do away with the unsatisfactory conditions in the hospital and make possible more suitable entertainment of relatives of pupils who visit the school.

Formerly the erection of a modern laundry at Eufaula was recommended. However, arrangements have been made whereby all laundry work, excepting that required for giving instruction to pupils in hand laundry, has been sent to a commercial laundry in town. Under this plan the salary of a laundress, as well as the expense of the upkeep of a power laundry, is saved, attention of the superintendent and of employees whose time may well be given to more important matters is conserved, and pupils receive necessary instruction without wasting on purely routine work time required for duties having educational value.

Regarding the need for more land, the matter of acquiring an adjoining tract was taken up some years ago. As reported by Rev. Father Ketcham, this school is located within the corporate limits of the town of Eufaula. It is surrounded by town lots for which high prices are asked, and as the soil generally is very poor and thin it is not thought practicable to purchase any of this land for a garden. The superintendent has met the need for a garden plat by obtaining the use of a vacant tract comprising about one-half or three-quarters of a block adjoining the school campus. This has been intensively cultivated, and as fast as one crop of vegetables is used another is planted. It is planned to grow beans, tomatoes, and sweet corn for canning, and sweet and Irish potatoes will also be planted. There is an abundance of early vegetables, and these are now being used.

I am of opinion that with the construction of the employees' lodge referred to almost the only just cause for adverse criticism at Eufaula will be removed.

Sincerely, yours,

CATO SELLS, *Commissioner*.

Hon. E. C. BRADLEY,
Assistant to the Secretary, Interior Department.

APPENDIX E.

REPORT ON NAVAJO INDIANS, LEUPP RESERVATION, ARIZ., BY
FRANK KNOX.MANCHESTER, *May 28, 1917.*

SIR: I beg leave to submit herewith my report covering investigations made at the Leupp superintendency.

The school buildings and those of the agency are located in the midst of the desert about 18 miles north of the main line of the Santa Fe Railroad. All of the land occupied by the Navajo Indians within this jurisdiction has the legal status of land withdrawn pending allotment. Thus it may be seen that the status is a temporary one, and I most strongly recommend that the board urge upon the Government the wisdom of changing the status of this land to that of an Indian reservation. This ought to be done to insure the future economic independence of these Indians and to validate beyond cavil previous exchanges of land between the Government and the railroads directly involving the land in this area.

It is idle to assume that land may be allotted these Indians in this area with the expectation that the individual Indian will remain upon his allotment and gain his livelihood therefrom. The sole source of income to these Indians, who are at present entirely self-supporting, comes from their flocks and herds. The land itself provides extremely scant feed, and the Indian, dictated to by necessity and conforming to century-old custom, follows his flock wherever the necessities of the flock for feed and water may lead.

It is inconceivable that the Government can ever successfully adopt a policy of allotment for the Navajos. To attempt to do so would speedily reduce the majority of them to pauperism and convert an independent, self-sustaining people into a class of dependents. Since this is true the fiction that the land occupied by the Navajos within the Leupp jurisdiction is land withdrawn for allotment should be abandoned, and the requisite legal action should be taken to convert it into a bona fide Indian reservation.

I shall not attempt in this report to discuss the extremely practical problem involved in the negotiations for an exchange of land between the Government and the Santa Fe Railroad, which would secure to the Navajos undisturbed and complete possession of lands lying between the Santa Fe Railroad and the southern boundary of the present Navajo Reservation. This region now affords support to a large number of Navajo Indians, whose means of livelihood is seriously threatened by reason of the existing situation. Failure to act in this matter has already resulted in the probably permanent alienation of title to some of the most valuable sources of water supply in this region, and this policy must be abruptly terminated and provision made for these Indians or the Government will soon find itself compelled to provide them with sustenance and supplies necessary to keep them from utter want. Secretary Lane has already vigorously taken hold of this matter, and I have no need to urge that the board continue to support him vigorously in the efforts which are being made to alleviate this situation.

I found conditions at the Leupp Indian School excellent and the school attended practically up to its maximum capacity. The superintendent, Mr. Stephen Janus, assured me that he had little difficulty in inducing Indian parents to send the children to school, and the children gave every evidence of being contented and happy in their environment. There is imperative need, however, that the Government largely expand its educational facilities for the children of the Navajos.

An extremely large percentage of Navajo children under present conditions are left absolutely without school facilities. The plant at Leupp, without seriously increasing overhead expense, could be expanded to accommodate many more pupils, and with the enlargement in numbers would come greater opportunities for efficient instruction.

Respectfully submitted.

FRANK KNOX.

Hon. GEORGE VAUX, Jr., *Chairman.*

APPENDIX F.

REPORT ON THE WALAPAI INDIAN RESERVATION, ARIZ., BY FRANK KNOX.

MANCHESTER, *May 9, 1917.*

SIR: I beg leave to inclose herewith my report, covering my investigation of the Truxton Canyon Indian School and Reservation, at Valentine, Ariz.

I found the Walapai Indians on this reservation substantially self-supporting. They find a means of livelihood as common laborers in the small towns along the railroad and, in a small percentage of cases, in employment by the railroad itself. But very few of the Indians live on the reservation proper. Most of them find domicile in miserable shacks in the outskirts of near-by towns. They live in indescribable squalor and under the most adverse sanitary conditions. As a natural corollary, the health conditions are bad. It is estimated that fully 65 per cent of the members of this tribe are tubercular.

The Indian Bureau, acting through the superintendent, Charles E. Shell, is bending every energy in the direction of establishing the Indians on their own reservation and of inducing them to earn a living by stock raising, which is the only form of agricultural activity to which the land within the reservation lends itself. For some period of years the bureau has been leasing grazing privileges on the reservation to white men and in this way accumulated a fund of \$50,000 or \$60,000. Using money from this fund the bureau has very wisely, in my estimation, invested in a herd of about 500 head of cattle. The young female stock from this herd is being sold to the heads of Indian families at reasonable prices, and the Indians are permitted to pay for same by day labor on the reservation. In this way a number of families have already been established on the reservation and are in a fair way to become self-supporting.

The superintendent, Mr. Shell, has written me a very interesting letter covering this experiment and including a statement of the results of the experiment. This letter follows:

TRUXTON CANYON INDIAN SCHOOL,
Valentine, Ariz., March 8, 1917.

MY DEAR MR. KNOX: In compliance with your request upon your recent visit here I am inclosing herewith a copy of statement showing the development of the tribal and individual stock industry on the Walapai Reservation, covering the period from June 1, 1914, to June 1, 1916.

No definite report has been made since June, 1916, as our stock year ends in June of each year and the next report will be due next June. The report therefore covers two years from the beginning of the stock industry on our reserve. The months from last June to the present have been an unusually favorable period on the stock, and I am sure the next report will show a very satisfactory advance. We made our first sale of stock on the 11th of last month, selling 38 head of coming 3-year-old steers, weighing in the aggregate 28,035 pounds, at \$8.50 per hundredweight, bringing \$1,692.28.

I explained to you our plan of interesting the Indians in handling of individual herds. Everything indicates that this plan will work out successfully.

Very sincerely,

CHAS. E. SHELL, *Superintendent.*

DEVELOPMENT OF THE STOCK INDUSTRY ON THE WALAPAI INDIAN RESERVATION, ARIZ.

Cattle, tribal:

497 cows purchased in June, 1914, at \$41 per head.....	\$20,379
20 bulls purchased in June, 1914, at \$115 per head.....	2,300
18 bulls purchased in May, 1915, at \$75 per head.....	1,350
10 bulls purchased in May, 1916, at \$98 per head.....	980

Calves branded from above herd up to Jan. 1, 1915:

Males.....	48
Females.....	51

Calves branded from above herd year ended Jan. 1, 1916:

Males.....	152
Females.....	139

Calves branded from above herd Jan. 1 to June 1, 1916:

Males.....	96
Females.....	114

Total..... 600

Cattle, individual (purchased from Indian moneys, pro labor):

150 cows purchased in May, 1915, at \$47 per head (cows branded ID, also numbers 1 to 15 left ribs).....	7,050
Calves branded from above herd up to Jan. 1, 1916.....	34
Calves branded from above herd Jan. 1 to June 1.....	25

Of the above, it is known that three yearling heifers, two yearling steers, two tribal and one individual cows have died and been killed by accident. Of course this does not cover the entire loss, as no doubt some have died that have not been found, but such loss is small.

89 mares purchased in October, 1914, at \$50 per head (9 sucking colts came with these mares).....	\$4,450
3 stallions purchased in March, 1915.....	1,125
2 saddle horses (geldings) purchased in May, 1914.....	165
2 saddle horses (geldings) purchased in May, 1916.....	185

Colts branded from above herd from date of purchase to June 1, 1916:

Males.....	26
Females.....	21

Total..... 47

Add to this the 9 colts that came with the mares..... 9

Total..... 56

An acute need on this reservation is the further development of water resources, and a careful examination of the possible source of water on the reservation and their prompt development appears to me to be dictated by sound business judgment.

Respectfully submitted.

FRANK KNOX.

HON. GEORGE VAUX, Jr., *Chairman.*

APPENDIX G.

REPORT ON THE SAN XAVIER AGENCY, PAPAGO RESERVATION, ARIZ., BY SAMUEL A. ELIOT.

Boston, May 21, 1917.

SIR: I beg to report my observations during a visit, on February 28, 1917, to the San Xavier Agency on the Papago Reservation.

It was gratifying to observe the progress on the reservation since my visit in 1914. Practically all of the recommendations made in the report which Commissioner Ketcham and I submitted at that time have been carried out. The Executive order reservation recommended in that report has been duly set aside by action of the President. The litigation with the Tucson Farms Co. has been brought to a satisfactory conclusion. Five day schools have been added at well-selected points, and the hospital recommended by the board is in process of construction. A considerable number of additional wells have been sunk on the Papago Reservation to supply water for domestic purposes in many of the villages.

Certain readjustments of the boundaries of the Executive order reservation have been brought about within the last few months. These realignments have been determined after careful study and in conference between the officers of the Department of the Interior, the representatives of the Indians, and the representatives of the State of Arizona, and the communities near the reservation. The boundaries are now established so as to follow natural heights of land instead of following artificial straight lines. The adjustments are satisfactory to practically all persons concerned, and are heartily to be commended.

RECOMMENDATIONS.

I beg to submit the following recommendations for the further improvement of affairs on the reservation.

1. The agency is now established in temporary and unsuitable quarters at San Xavier, on the extreme eastern edge of the reservation. It should be transferred to a more central position and established either at Indian Oasis or at Santa Rosa. The final choice of a location is dependent upon the decision as to the direction and terminal of the road now being constructed westward from Tucson. It is at present believed that the road will be carried through to Indian Oasis and, if so, that will become the natural location for the agency. Santa Rosa is, in my judgment, a better center and a good road could readily be constructed thence to the railroad at

Casa Grande. After the transfer of the agency the Berger Ranch, now occupied by the superintendent at San Xavier, should become the farmer's house.

2. Electric power for the wells at San Xavier ought to be secured as early as possible. The transmission cables are now within only about $1\frac{1}{2}$ miles from well No. 5, which is the chief supply of irrigation water for the Indians at San Xavier. It is also desirable that an inexpensive cable bridge should be constructed across the river at or about well No. 5. All the pumps now in use at the wells which supply the San Xavier Indians with water are on temporary foundations, awaiting the introduction of electric power before permanent construction is undertaken.

3. The Indians should be encouraged to work at road building and in the maintenance of the wells and the irrigation ditches. They are taking an increasing interest in the maintenance of the dams and the ditches, and this sense of responsibility should be steadily upbuilt. It is highly desirable that Indian labor should be employed on the roads now building on the reservation.

4. The Indians at San Xavier should be encouraged to farm their allotments with closer application and more persistent industry. Many of them continue to earn their living primarily by wood cutting and then hauling the loads of wood into Tucson, where the drivers and wood cutters are inevitably exposed to temptations.

5. I commend the closest possible cooperation between the officers in charge of the reservation and the authorities of the agricultural experiment station at the University of Arizona, and the desert laboratory at Tucson. The Indians are naturally expert desert agriculturists and with the aid of the agricultural experiment station the work on the reservation can not only be made more serviceable to the Indians themselves, but also helpful and suggestive to the white population of the State.

6. The main dependence of the Papago Indians will always be on farming and for their success in agricultural employments they are dependent upon the supply of surface water. The wells now in use, and others that may be sunk, can furnish a supply for domestic use and for the stock, but, except at San Xavier, there must always be an insufficient supply from this source for irrigation. I believe that careful attention should be given to the utilizing and extending of the traditionary ways and customs of the Indians in impounding the spring rains. The Indians from time immemorial have been in the habit of building little reservoirs in the creek bottoms on each wash and thus securing a limited supply of water for irrigation. These crude dams are susceptible of great improvement and much larger stores of water can be developed if more attention is given to this surface-water supply. Certain experiments in Sonora have conclusively shown that the surface supply of water in the desert regions of the Southwest can be greatly increased by more skillful engineering work.

Respectfully submitted.

SAMUEL A. ELIOT.

HON. GEORGE VAUX, Jr., *Chairman.*

APPENDIX H.

REPORT ON THE SAN CARLOS INDIAN RESERVATION, ARIZ., BY
SAMUEL A. ELIOT.BOSTON, *June 9, 1917.*

SIR: I herewith transmit to you a report on the San Carlos Indian Reservation, made to me by the secretary of the board.

I have no personal acquaintance with conditions on the San Carlos Reservation but I am able, through conference with judicious people better acquainted than I am with the situation, to heartily indorse the recommendations of the report and to urge the provision of a new dairy barn and the improved lighting system at the Rice Station schools, and of the use of the fund of \$12,000 now standing to the credit of the San Carlos Indians for the purchase of cattle.

The conditions on the reservation seem also amply to justify the recommendations that hereafter the agency expenses should be paid from a gratuity appropriation and the income derived from the leasing of Indian lands freed for the direct benefit of the Indians.

Respectfully submitted.

SAMUEL A. ELIOT.

Hon. GEORGE VAUX, Jr.

APPENDIX I.

REPORT ON THE MISSION INDIANS, BY FRANK KNOX.

PHILADELPHIA, *June 7, 1917.*

DEAR MR. SECRETARY: Commissioner Knox of this board has enlisted in the Officers' Reserve Corps of the Army and is now in training at Madison Barracks, Sacketts Harbor, N. Y. In March Mr. Knox made a trip of inspection of the Mission Indian reservations of southern California and submitted recommendations which were approved by the board at its meeting at Riverside, Cal.

These recommendations were to be amplified in a report which Mr. Knox intended to file with the department. As he is now in the service and can not at this time take up these questions, he has requested that the recommendations be filed in their present brief form for your information.

Therefore, I take pleasure in submitting Commissioner Knox's recommendations as follows:

My recommendations as respects the Pala jurisdiction are that immediate attention be given to adequately protecting the land at Pala from erosion; the providing of funds to install plumbing and toilet fixtures in all the dwellings in Pala Village; the restoration of a bridge over the San Luis Rey River; the reallocation of all Indians at Rincon, La Jolla, and Pechanga; the scientific development of water for irrigation at Pechanga and the Federal appropriation of \$15,000 toward the cost of construction of a wagon road between Pala and Temecula.

Conditions at Pala were made acute by the damage caused during the freshet of 1916. The restoration of an irrigation ditch is already provided for but immediate steps should be taken to safeguard the banks of the San Luis Rey River from further cutting. The area affected by the destructive work of the river comprises the most valuable agricultural land on the reservation, and its steady diminution is an extremely serious matter. An appropriation

of \$4,000 is now being expended in the construction of a sewerage system at Pala but no provision has been made for the installation of the necessary plumbing and fixtures in the houses of the village. This will require about \$3,000 additional.

The restoration of the bridge over the San Luis Rey River, carried away during last year's freshet, also is an imperative necessity. It is estimated this will cost approximately \$15,000.

At Rincon the great need to promote permanent and satisfactory conditions is allotment of the Indians upon their land. This would encourage development of available water sources and the erection of permanent homes, and what has just been said of Rincon is equally true of La Jolla. Sufficient land and water are available if the Indians are given assurance of permanence in their holdings so that they would be disposed to develop water resources and put them under cultivation.

At Pechanga the first essential is a careful survey of water resources and their efficient development. It is probable there is an ample supply of water in the canyons to irrigate all of the available land on the reserve, in which case all the Indians could be allotted and enabled to support themselves on their respective allotments.

The property holders of the Pala Valley, adjacent to the Pala Reservation, have organized a good roads district and have undertaken to bond themselves to the extent of \$10,000 toward the cost of construction of a good wagon road between Pala and Temecula. It is estimated this road will cost approximately \$25,000 and, as all freight to and from Pala is hauled over this highway and, as three-fourths of the traffic over the road has its origin on the reservation, it seems to be most reasonable that the Federal Government should share in the expenses of construction.

I have no specific recommendations to make as to the Banning and Palm Springs Reservations. I understand, however, that certain conditions affecting the water supply at Martinez, also under this jurisdiction, are bad and require prompt attention, and I urge the board to call this situation to the attention of the Secretary of the Interior with a strong suggestion that the question of water supply at Martinez be thoroughly investigated and proper remedial measures be taken.

Cordially, yours,

GEORGE VAUX, Jr.

The SECRETARY OF THE INTERIOR.

APPENDIX J.

REPORT ON THE LANDLESS INDIANS OF CALIFORNIA AND NEVADA, BY DANIEL SMILEY.

MOHONK LAKE, *June 1, 1917.*

DEAR MR. VAUX: A resolution, adopted at the Riverside, Cal., meeting of the board March 10 to 13, 1917, assigned me the task of making a survey of the so-called "landless and homeless" or non-reservation Indians of California and Nevada, and detailed Secretary McDowell to assist me.

I directed our secretary to proceed to certain places in California and Nevada to secure needed information touching the Indians under consideration, and he has submitted a narrative report which I am making a part of and appending to this, my report and recommendations, covering the Indians in western Nevada and northeastern California.

We should continue the survey so as to include the Indians in southern California and those in northwestern California and in Oregon under the jurisdiction of the special agency at Roseburg, Oreg. While the condition of some of these Indians may not be as

deplorable as those visited by our secretary there are so many who are as needy that our board should pursue the inquiry further. I believe we can effectively assist the Secretary of the Interior and the Commissioner of Indian Affairs in carrying out their plans to help the landless Indians by securing first hand, disinterested information to use before the Indian committees of both houses of Congress if necessary.

The landless and practically homeless Indians of California and Nevada have long appealed to my sympathies, and I do most earnestly hope that the measures I recommend may be carried into effect. These Indians have been too long neglected and they are deserving of more help than has heretofore been offered them. In very many cases it is through no fault of their own but entirely through the neglect, if nothing more, of the white man, that their condition is so miserable. Many of them, I am sure, have as fully valid claims to our sympathy and our substantial aid as those Indians on reservations.

RECOMMENDATIONS.

Therefore I submit the following recommendations:

First. That the Board of Indian Commissioners approve the projects of the Indian Office to buy, or otherwise secure, land and build houses thereon for the nonreservation Indians as follows: Twenty acres between Reno and Sparks, Nev.; 160 acres near Carson City, Nev.; 40 acres near Gardnerville, Nev.; and 40 acres on the school reserve at Fort Bidwell, Cal., so as to provide permanent homes for the Paiutes, Washoes, and Pit River Indians, and that the board exert its influence to secure larger appropriations from Congress so that the Commissioner of Indian Affairs may carry the several projects to a successful conclusion.

Second. That the Commissioner of Indian Affairs be urged to appoint a competent agent whose sole business will be to look after the physical, educational, and moral welfare of the nonreservation Indians who have been placed under the supervision of the Reno Special Agency.

Third. That the board consider the advisability of moving the Fort Bidwell School to a site nearer and more convenient to the Nevada, California & Oregon Railroad; if this change can not be effected, the board then to strongly insist that the Fort Bidwell School plant be completely modernized.

Fourth. That the board consider the advisability of urging Congress to place a substantial sum of free money in the hands of the Commissioner of Indian Affairs, with such wide discretionary powers that he may be able to meet extraordinary ration and charity demands instantly.

Fifth. That the board recommend the construction of a new dormitory for the young students at the Carson Indian School.

Sixth. That the board recommend that the Commissioner of Indian Affairs consider the advisability of selling the land of the allotted Indians in western Nevada and Modoc County, Cal., the proceeds to be used to improve the living conditions of the allottees.

Seventh. That the board urge the speedy allotment of the Nevada (Pyramid Lake) Reservation Indians.

I trust that our board may be able to follow up the report and obtain a hearing of the department and all others who can substantially supply the needs of these poor Indians and afford them the means of advancing to a better living condition, of which, I am sure, they are entirely capable.

Cordially, yours,

DANIEL SMILEY.

HON. GEORGE VAUX, Jr., *Chairman.*

APPENDIX K.

REPORT ON THE SOBOBA INDIAN AGENCY, CAL., BY SAMUEL A. ELIOT.

BOSTON, May 21, 1917.

SIR: In company with Commissioner Knox I visited the Soboba Agency on March 7, 1917.

This jurisdiction covers eight widely separated reservations, each offering a bare livelihood to a small band of Indians. There are small day schools at three of the reservations and at several others the children are provided for, by contract, at the neighboring public school. These Indians are naturally desert agriculturists, and where water is obtainable they are or can be entirely self-supporting. None of these bands have been allotted. Each family, however, lives upon what is practically a home tract and farms within well-understood boundaries. The people assume that, when the time for allotment comes, the title to the tracts which they have thus worked, or where they have long lived, will be given to them. The allotting work should be done as soon as possible. There seems to be no reason for delay.

A considerable part of the Soboba Reservation, including most of the best land along the river bottom, is at present in litigation. The San Jacinto Water Co. claims this land and is bringing suit to invalidate the title of the Indians. This suit should be vigorously defended by the Government and the presumptive rights of the Indians maintained. This is one of the most immediate and pressing duties of the department. If the Indian title to these lands can be set aside not only will the Soboba Band be impoverished but the rights of the Indians on many other reservations in southern California will be imperiled.

The other needs at the Soboba Agency may be briefly summed up, as follows:

RECOMMENDATIONS.

1. The bridge over the San Jacinto River, which connects the reservation with the town of San Jacinto, was destroyed in the great flood of 1916. It can be restored for \$5,000, and this work should be contracted for as soon as this sum can be provided.

2. When the suit of the San Jacinto Water Co. shall have been settled and the Indian title confirmed, an additional well and pump should be located just below the office of the agency to provide for the irrigation of the lower lands where the best crops can be grown.

3. A community house for the meetings of the Progressive League, for social gatherings, and for a library and reading room, would

add greatly to the community life on the reservation. The building of such a simple house would permit of the remodeling of the office building, the rear of which is now used for some of these purposes. The additional space in the present building is greatly needed for a private office for the superintendent and for a dispensary for the doctor.

4. A shed is needed for the shelter and storage of the farm implements and the agricultural machinery. These are now exposed to the weather, and there is no place where they can be stored. The shed can be built for \$269.50.

5. There are no Government hospital facilities for the Indians of the eight reservations within this jurisdiction. A simple field hospital should be located at once at Soboba, which is the natural center and where the aid of the doctors and surgeons of the neighboring towns can be secured.

Respectfully submitted.

SAMUEL A. ELIOT.

Hon. GEORGE VAUX, Jr., *Chairman.*

APPENDIX L.

REPORT ON THE PUEBLO AGENCY AND DAY SCHOOLS, NEW MEXICO, BY GEORGE VAUX, JR.

BRYN MAWR, *May 15, 1917.*

GENTLEMEN: Herewith I report the results of my observations and my recommendations respecting certain of the pueblos and schools under the superintendency known as the Pueblo Agency and day schools of New Mexico, with headquarters at Albuquerque.

PUEBLOS VISITED.

In all, I visited the following pueblos: Sandia, San Felipe, Santo Domingo, Santa Ana (summer pueblo), Isleta, Leguna, Paguate, and Acoma. There are no schools at Sandia, Santa Ana, and Acoma. I was also at the Paraje Day School, at Casa Blanca.

The investigations that I made were not so much in connection with schools as they were regarding general conditions and the points of importance which the Indians urged respecting some of their land and similar matters. Certain criticisms respecting details at schools I have transmitted to the proper officials in the Indian Bureau.

NEED OF COMPETENT LEGAL ATTORNEY.

The most crying need for the Indians at the time of my visit was the appointment of a suitable attorney who should look after their interests with energy. They had not been so represented since the late summer or autumn of 1914, when Mr. F. C. Wilson, of Santa Fe, who had held the official appointment for some time and who had conducted the suits for the Indians in a very efficient way, resigned. His successor, who automatically left the service near the close of 1916, had failed to follow up the cases which were pending at the time of Mr. Wilson's withdrawal or to bring new suits in cases where

they were required, with the result that serious loss to the Indians seemed absolutely inevitable, and the menace was increasing the longer the appointment of a competent attorney was deferred. Early in April an appointment was made, and it is sincerely to be hoped that the gentleman selected by the Department of the Interior will prove able, alert, and efficient, and also that he may have the force of character to withstand any local interests adverse to those of the Indians.

FEDERAL COURTS SHOULD HAVE EXCLUSIVE JURISDICTION.

In connection with these suits to protect titles of the Indians it would be most desirable that there should be further congressional enactment giving to the Federal courts exclusive jurisdiction in all Indian cases in New Mexico. The enabling act when New Mexico was admitted as a State undoubtedly contemplated that this should be the situation, but that act does not execute itself, and the adoption by Congress of further legislation in the line indicated would remove from Indian litigation a large amount of technicalities and should not be the subject of criticism in any quarter.

NECESSITY FOR SURVEYS.

There is constant pressures of whites and Mexicans to secure a foothold on lands included within the Indian grants, and the ability to detect these trespassers is often a matter of complication and uncertainty, owing to the fact that the precise lines of the pueblo grants have never been established. It would tend to the simplification of the situation and the detection of trespassers and squatters if all of the Indian grants that have not been surveyed should be surveyed at once, the location of all squatters, etc., clearly defined, and probably for the boundaries of the pueblos to be fenced, if this can be done without the infraction of existing laws. Suits to quiet title and evict squatters should be entered in all cases disclosed by these surveys. Some of this work has been done already, and there is much data now available. It should be used at once and suits brought in ejectment or to quiet title in every case where trespassing is disclosed.

UNSANITARY CONDITIONS.

Possibly the most striking feature in connection with all of the pueblos is the absolute lack of any sanitary provisions or measures. Garbage, offal, and filth of all sorts are simply thrown into the streets of the villages, and were it not for the exceedingly dry character of the atmosphere undoubtedly health conditions would be excessively bad. The Indians do not take kindly to any limitations in sanitary lines and the problem presented is one that is fraught with extreme difficulties. It should receive, however, most careful thought and study, with the object of endeavoring to devise some elementary sanitary measures which can by degrees be enforced and the Indians brought to a position of appreciating the importance of conforming to requirements, the necessity of which must be obvious to anyone who has given thought to these subjects. Trachoma appeared to be prevalent, and I saw

some blind people and also a good many children with sore eyes. There should be more medical attention given in all of the pueblos than that which the present arrangements provide for.

WATER SUPPLY.

The water supply at many points is uncertain and of poor quality. Investigations in some of the regions have shown that excellent water can be obtained at no very great depth, and a modernly equipped well-drilling outfit should be supplied promptly, with the probability that as time progresses additional outfits could be used to advantage.

SCHOOL AT SANTA ANA.

Whilst a study of the school situation did not receive so much attention as some other points, it is evident that this work should be strengthened and improved in a good many directions. The places which I had the opportunity to examine impressed me with the importance of taking such steps, and I was told by agency employees of other localities where the same situation exists. To my mind, a very important thing to do would be to establish a school at the summer pueblo at Santa Ana. The Indians are reported as being anxious for this and have agreed to reside permanently there if a school is established, practically abandoning the winter pueblo which lies some miles distant among the hills. The summer pueblo is on the flats along the Rio Grande, where the Indians have their farms. A large number of them had already removed to their summer quarters by the middle of February, and I counted in and around the village about 30 children for whom there is no school provision whatever made by the Government, except in so far as they may be sent away to the nonreservation boarding schools. This seems to be very wrong, and the suggestion of the Indians giving up their winter pueblo altogether and locating permanently at the summer one, where a school can readily be established, would seem a most excellent solution of the situation.

SCHOOL AT ACOMA.

At old Acoma there is no school, but there is one at Acomita, which is several miles distant on the railroad. If Acoma is to be continued as a dwelling place of the great majority of this band, it would seem as though a school should be established there also. The problems involved are difficult, however, as the Acoma people are most unprogressive, and the situation will be one which requires the utmost tact and ability to handle. In this connection it is most important among the Pueblo Indians that the school appointees should be men and women of tact and experience. They have serious difficulties to overcome in their contact not only with the children but with their parents, probably more so than in a great majority of the Indian schools. Whilst some of the schools that I visited were being well handled in this respect, there were others again where there was room for a great deal of improvement. The character of the buildings that may be erected should also be given very serious consideration. As a sample of the sort of things

that have been done, at one of the pueblos which I visited there was a modern building which measured about 24 by 30 feet, divided in the interior into four small rooms and a bath, which was said to be designed to provide living accommodations for seven employees, both married and single, whilst a surplus of the appropriation was devoted to other purposes.

THE ISLETA LAND GRANT.

There are several serious matters affecting some of the pueblos which I visited which I shall now consider separately. One of the most progressive of all the towns is that of Isleta. These Indians own an old Spanish grant which was supposed to run from their village to the west to the Rio Puerco and to the east to the backbone, "espinaza," of the mountains. From time to time there had been controversy as to where the eastern edge of this boundary is, and, finally, some years ago a deputy surveyor was ordered to survey this land. He apparently found that he was getting into rather rough country and difficult to survey through, and accordingly attempted to calculate an offset to obviate the necessity of actually running the line where the old grant called for. Whether through error or otherwise, this offset was laid back again on the Indian lands instead of going farther east, with the result that the line as marked is a long distance, perhaps as much as 5 miles, from the true top of the ridge. This is evident to anyone who will go on the ground and observe the situation, for it can readily be seen that the backbone of the ridge (this is necessarily the watershed) is some six or eight ridges farther east than where the line had been marked. It is further the case that a line following the backbone of the ridge would be more or less irregular and not a straight north and south line, as has been laid out approximately upon the survey.

I have not been able to secure the information as to whether or not the leveling work of the United States Geological Survey has been done at this precise point, although they have been working in the immediate vicinity.

The land in dispute, as the Indians have never given up claiming it, is not of very great value but for the fact that it secures to the pueblo, which is about a dozen miles distant, a supply of firewood and timber. Of this under existing conditions the Indians are deprived, as the adjacent territory claimed by them has been converted into a United States forest reserve, and the officials of the Forestry Bureau eject Indians when they go on what it appears pretty clearly is their own land for the purpose of cutting timber. This matter has been before the Indian Bureau for a long while, and there have been several reports made favorable to the Indians, but no definite action has been taken. Certainly, before the matter goes any further, they should have restored to them what clearly belongs to them. It would seem as though, with the grant using the words that it does, there should be no difficulty in locating the "backbone of the mountain," namely, the watershed, and that the data secured by the Geological Survey in its map-making work should be absolutely final. I would urge most strongly that steps be taken by the Indian Bureau to secure this land for the Isleta Pueblo. An Executive order would probably set the matter straight.

THE PAGUATE GRANT OF THE LAGUNAS.

The Laguna people are very progressive and are desirous of adopting the best of the white men's ways and having their children educated properly. They are being subjected, however, to most serious encroachments by the Mexicans, especially at the northern end of what is known as the "Pagate grant," an old Spanish grant purchased by the Pueblo 100 or more years ago. Within a comparatively short time the Mexicans have squatted on this territory and have endeavored to push the northern line of the Indian land south a mile or two, involving many thousands of acres of land, and also the site of the small Pueblo of Paguate, where a number of the Laguna people live. There is also involved most of the best farming land belonging to Lagunas. The legal dispute involving this territory was brought on behalf of the Mexicans in the New Mexico courts and was decided adversely to the Indians. It should have been appealed immediately to the United States courts, where undoubtedly a different decision might have been secured. This is one of the matters which was pending in the autumn of 1914. No steps, however, were taken in this direction and the complications, from a legal standpoint, of protecting the Indians have been very much increased. I have reason to believe it is not too late, however, to save much, if not all of this land, and it is sincerely to be hoped that the new attorney recently appointed has matters well in hand to save whatever is possible at this late date. The most strenuous efforts should be made to keep the Lagunas from being robbed of this large tract of land.

There are some similar propositions in what is known as the Encinal grant, where the Mexicans are also encroaching, but where the controversy has not yet gotten into court. Water is being diverted and the Indians are being shoved off from their lands. Prompt and energetic action may save much of what is claimed there also.

IMPROPER ALLOTMENTS AT LAGUNA.

A good many years ago there were 45-acre allotments made to a number of the Laguna Indians. The land so allotted is almost absolutely desert. A little sparse grass grows upon some of it, and there are also some scrub cedars and sagebrush. It is absolutely impossible for anybody to make a living under existing conditions on 45 acres of such ground, and it would be desirable for the whole of this allotment to be looked into, with the object of securing a more equitable distribution of the land, and also a reconsideration of the which each Indian is to have. I gravely doubt whether at this time any of it can be allotted with propriety. So far as it has any value as yet, it is for a very little grazing, and to be efficiently used in that way it must be held in much larger tracts than any individual allotments could possibly be.

CONDITIONS AT ACOMA.

The conditions at old Acoma are among the most difficult of any to handle, owing to the extremely reactionary influences which are in control there. From a picturesque and dramatic standpoint this is one of the most interesting of any of the pueblos, and at the same

time and possibly for the same reasons, one of those where the outlook is most discouraging. If, as recommended above, a school could be installed there with the right sort of teachers, it would undoubtedly in the end produce favorable results, and this endeavor should be made if Acoma is to be continued as a dwelling place for any considerable number of the Indians. Acomita, one of its subsidiary pueblos, is several miles distant and in any event the school there should be strengthened.

The Acoma people also have serious questions as to their lands and are very solicitous that a survey should be made without delay in order that encroachments may be disclosed and squatters and others evicted.

NONRESERVATION BOARDING SCHOOLS.

In addition to the pueblos, I visited the Government boarding schools at Albuquerque and at Santa Fe. As to the former I have submitted a few brief suggestions to the Commissioner of Indian Affairs, but there would appear to be nothing in connection therewith that requires action on the part of the board. The Santa Fe School I found in very excellent condition, and much of the work going on there was most commendable. The recent improvements, especially the library building and the very modern up-to-date cow barn, are especially subjects of note.

Respectfully submitted.

GEORGE VAUX, Jr.

APPENDIX M.

REPORT ON THE PIMA INDIAN RESERVATION, ARIZ., BY SAMUEL A. ELIOT.

BOSTON, *June 15, 1917.*

SIR: I herewith transmit to you a report on the Pima Indian Reservation, made to me by the secretary of the board.

I wish to call special attention to two of the general recommendations made in Mr. McDowell's report. First, to the necessity of a study by the Board of Indian Commissioners of the special needs of the isolated day schools for Indians. No one can visit the Indian Reservations without being impressed by the courage and fidelity of many of the teachers in these lonely and difficult positions. Every care should be taken to provide them with adequate compensation, decent housing, and the equipment which will make their work more efficient and successful. Second, I call attention to the need of providing automobiles not only for the superintendents but also for the physicians, farmers, and field matrons on these large desert reservations of the Southwest.

My own acquaintance with the conditions on the Pima Reservation enable me to emphasize certain of the recommendations in Mr. McDowell's report. More than two years ago I called attention to the urgent need of a bridge and diversion dam across the Gila River at Sacaton. It appears that an appropriation was made for that purpose but it is inadequate. Since my former visit the river has eaten out its banks so that a much longer dam and bridge are now

necessary and the price of labor and material has risen. Provision should be made at the earliest possible moment for this essential bridge. The plans of the engineers are thoroughly well devised.

I note with especial pleasure the increased interest of the Pimas in cotton raising and their cooperation with the good work of the Government agricultural station. I heartily agree with the secretary of the board in commending the progress made by the Indians under the judicious and energetic leadership of Supt. Thackery and his successor Mr. Ward, and I am glad to note also the efficiency of the reservation farmers.

I indorse and commend the recommendation of the report for the building of a cottage for the doctor at Gila Crossing and for new day schools at Sacaton Flats and Cooperative Village.

The special need of the Pima is, however, for better housing and for additional medical attention. There is urgent need of an additional eye specialist and for another field matron.

Respectfully submitted.

SAMUEL A. ELIOT.

HON. GEORGE VAUX, Jr., *Chairman.*

APPENDIX N.

REPORT ON THE SALT RIVER INDIAN RESERVATION, ARIZ., BY SAMUEL A. ELIOT.

BOSTON, June 19, 1917.

SIR: I have the honor to transmit to you herewith the report of the secretary of the board on the conditions and needs of the Indians on the Salt River Reservation in Arizona.

Everyone who is acquainted with the situation will indorse the recommendation that a larger supply of water for irrigation is imperatively needed if the Indians on the Salt River Reservation are to have a real opportunity to advance in civilization. I have been inclined to believe that the building of a diversion dam at Needles would prove to be the best way of obtaining an additional supply. But if it appears that sufficient water can now be secured more quickly and economically from the Roosevelt Dam System, I am more than ready to approve that solution of the problem. From one source or the other more water is a necessity.

The proposed removal of the McDowell Apaches to Salt River is evidently for the advantage of the Indians, but it will require patience and tact to secure the consent of the Indians. They are naturally suspicious of all such attempts at removal. I am quite sure that in time Supt. Coggeshall will be able to win the confidence of the Apaches and to convince them that by removing to Salt River they will lose nothing they now possess, and they will gain better houses, an allotment of irrigable land, and a chance for improved and more reliable living.

Respectfully submitted.

SAMUEL A. ELIOT.

HON. GEORGE VAUX, Jr., *Chairman.*

REPORT OF THE GOVERNOR OF ALASKA.

379

REPORT OF THE GOVERNOR OF ALASKA.

GOVERNOR'S OFFICE,
Juneau, Alaska, October 1, 1917.

SIR: I have the honor to submit this, my annual report of matters pertaining to the administration of this office for the fiscal year ended June 30, 1917.

GENERAL REVIEW OF CONDITIONS.

To give a complete review of conditions prevailing in Alaska and of matters connected with the administration of this office, affecting a Territory nearly 600,000 square miles in extent, entails a great deal of labor and careful research. Conditions vary in the different sections, so each requires special consideration, and there is no hard and fast rule which can be applied to all portions of the Territory in dealing with industrial and other matters affecting its welfare and progress.

In some sections during the past year there has been a slowing up of development and production; in others it has been accentuated. War conditions in all cases is the principal cause. In the first place, the European war, while stimulating copper production to a marked degree, as well as the search for rarer metals demanded by war conditions, had the effect of retarding gold-lode mining. The greatly increased cost of supplies, including provisions as well as those materials necessary in the operation of gold-lode mines, has had the effect of discouraging the development of mines of this character. Added to this was the great shortage of labor, affecting all kinds of mining operations, both in coastal and interior Alaska. This labor shortage is steadily becoming more acute. Miners, prospectors, and other workmen have been lured by the higher wages offered by the copper-mining camps in the copper-producing States, where wage scales are much higher than ever before known in the history of copper mining.

The principal gold-lode mines of Alaska are located in the southeastern section. The ores mined are universally low grade, and the operators claim that they are unable to meet the wage scales paid by the copper operators and many of the gold-lode mine operators elsewhere in the United States. There is probably truth in the contention.

A similar condition exists in some of the gold-placer areas, especially in interior Alaska, where the richer placers have been exhausted. Low-grade ground can not be mined at a profit under existing circumstances, it is claimed; neither can a fuel supply be procured at a price that will enable mine operators to work their ground at a profit and at the same time pay increased wages, with shorter working hours. This has particular reference to the placer mines of the Tanana region, once noted for their richness and prolific yield of alluvial gold. Little can be expected in the way of an increase of the gold product in that section until the problem

of cheaper fuel has been solved. The timber that was once contiguous to the placer mines has long since disappeared and wood (the only fuel available) must now be brought long distances at greatly advanced prices.

The opening of the coal deposits on the Nenana River, it is expected, will solve the fuel question, at least in part, if not wholly; but until cheaper fuel and cheaper power are available further substantial development of placer and lode mines in the Tanana Valley region can not be expected.

TRADE AND COMMERCE.

While the mining industry has suffered to some extent, as noted above, the trade and commerce of the Territory in 1916 was the greatest in its history; for mining alone is but one of the two great industries, the other being fishing, the salmon fisheries of Alaska ranking as the most extensive in the world. Considerable expansion in the fishing industry can be reported, especially during the last half of the fiscal year, which witnessed sharp increases in prices of all the different species of fish taken in Alaska waters; and the prices noted, as this report is being written, are the highest in the history of the fishing industry. The cause, of course, is not far to seek. It is in response to the great advances in prices of all commodities the world over, due in part to the abnormal conditions that have developed as a result of the world-wide war which has steadily assumed new and startling dimensions ever since its outbreak in August, 1914.

It should also be noted that the development of lode mines in this Territory, so as to become profitable producers, demands the investment of large capital, and it is apparent that since the European war began capital has not been seeking investments in the gold-lode deposits of this Territory; its attention, however, has been largely directed to the production of copper, which showed a remarkable increase during the year; and the present calendar year will show a still further increase, it is expected, notwithstanding the labor shortage and a labor strike in the principal copper-producing district, which lasted for some time before being finally adjusted.

AGRICULTURAL DEVELOPMENT.

The development of the agricultural possibilities of Alaska is a matter of gratification to all those who, knowing something of the agricultural capabilities of the Territory, have for years predicted the results which now seem assured. The entrance of the United States as an active factor in the Great War has had the effect of stimulating the cultivation of land suitable for agricultural purposes, and the production of agricultural products, especially potatoes and many varieties of hardy vegetables. The potato yield of Central Alaska this present year will be sufficient to supply local consumption and also the demands of northwestern Alaska, or the Seward Peninsula section of the Territory. This is a distinct departure, for until within the last year or two the great bulk of this tuber required for consumption in Alaska was imported from the States. Coastal Alaska, which includes what is known as the southeastern

and southwestern regions, will also produce a considerable proportion of the potatoes and other vegetables needed for home consumption. This is particularly true of the Cook Inlet district and some other sections. Indeed, from the Haines district, on Lynn Canal, for several years past, there have been considerable exports to the States of rutabagas and other products, such as cabbage and celery, these products being nowhere excelled in quality and flavor.

TOO MUCH RESERVATION.

In a general review of conditions prevailing in Alaska it is necessary to state that the Territory still suffers from too much reservation, rather than conservation, of its natural resources. With potentially great and valuable deposits of coal, little coal has as yet been produced commercially; with promising oil regions almost wholly undeveloped and placed by reservation beyond control other than that exercised by the Federal Government, Alaska oil and its products, so badly needed not only in Alaska but throughout the Nation, are of no more use to the people than if the oil lands were located at the North Pole.

The commercial development of the Territory, however, has made substantial strides during the year. Its trade with the United States was the greatest in its history. And, notwithstanding the decrease in mining along some lines, there is no reason to believe that the steady development which the past four years have witnessed will not continue indefinitely. However, the uncertainties of the present time and the unusual conditions that have arisen during the past three years, coupled with the waiting attitude of capital, must in the very nature of things, result in delaying that widespread development of the Territory's natural resources which otherwise would have resulted in greatly accelerated industrial progress.

POPULATION A REQUISITE.

In previous reports I have directed attention to what I deem one of the most insistent needs of the Territory—a greatly increased population; one that will be attached to the soil, so to speak. While the greater proportion of the population of Alaska is undoubtedly permanent, there is, on the other hand, a floating population attracted hither by the opportunities that are considered better than elsewhere. But this class is not actuated by a desire to become actual residents of the Territory. To these it is simply a place in which they may find anchorage ground for a time in order to better their conditions, and, when they have done so, to return to their former homes. It may be said, however, that this condition has obtained in every pioneer country. The argonaut came to see and explore; to make a stake and then to return to his former domicile. But many of them remained and became founders of new States and the builders of towns and cities, and history of that kind is repeating itself in Alaska. A permanent population has been established, though the process has been slow. Alaska's white population to-day probably is not much in excess of 50,000—a mere handful of people when the size of the Territory and the vast and varied natural resources are taken into consideration. The Scandinavian Penin-

sula supports a population of 10,000,000 or more; its natural resources are in no way comparable with those of Alaska. Climatically, conditions are similar, but Norway and Sweden and Denmark, as well as Finland, were old countries when the North American Continent was not even a dream.

If one were to indulge in speculative fancy, it would not be a difficult task to visualize Alaska, even a hundred years hence or less, with a population exceeding that of those countries. Time is required to populate a new country, to develop its resources, and make it a desirable one in which to live, to raise families, to die, and be buried. The mettle—the spirit—of the people who invade the wilderness, reclaim it, develop it, build towns and cities, and create industries is well exemplified in Alaska. It is a territory where the handiwork of the pioneer is in evidence on every side. Some one must point the way for others to follow, and to-day the bulk of the population is made up of the pioneer element, by which is meant those men and women who came to Alaska not later than the beginning of the present century. There have been other accessions to the population, but the insignia of a pioneer will not be theirs until more years have taken their flight, provided they remain in the country.

The statement that the people of Alaska have borne more handicaps than any other people who have pioneered new, undeveloped territory, at least on the North American continent, has been so often made that it has become trite. Nevertheless, it is true. The hardy people who settled the great country west of the Mississippi River, now comprising many rich States and no Territories, were absolutely unhampered by red tape and bureaucratic control, though they knew what governmental neglect and indifference meant. If the best portions of the Far West had been reserved; if the pioneers had been forbidden to make use of those natural resources which they found at hand, and penalized if they attempted to use them, is it reasonable to suppose that the Middle West and the Far West would have produced many great Commonwealths within a comparatively short time, as has been the case? Those who were founders of the Western States had free access to the land and to its natural resources. In fact, they were encouraged to work and develop the land; they were not loaded down by inhibitions; the modern negative, legislative, executive, and bureaucratic commandments had not been handed down—from Washington. The people of Alaska are told what they may not do quite directly, but they are frequently at a loss to know what they shall do.

MORE LIBERAL POLICIES.

Conservation, which is defined as the act of preserving, maintaining, supporting, or protecting, is no doubt sound in principle. Had the United States at the beginning of its existence as a nation adopted the policy of conservation, so far as its natural resources are concerned, there would not have been the great concentration of wealth in the hands of the few, such as we find to-day, but it is very probable that there would not have been the vast development that has been witnessed. But conservation, as applied to Alaska, while it has

preserved coal, oil, and timber, has largely estopped development along various lines. The coal lands of Alaska were reserved by Executive order in 1906 and the oil lands some years later, and there has been no general development of either coal or oil resources. Coal is mined to-day only on a small scale and oil development is at a standstill. Even under Government control, if the lands could be leased on reasonable terms (which is not the case), immediate and comprehensive development would follow.

The need of coal such as is found in Alaska is apparent all over the Pacific coast. Yet the production is limited and confined to but one section of the Territory. The same is true of oil; and it is submitted that until more favorable laws and regulations are enacted and promulgated there will be but sporadic development of these resources. There is no doubt that the coal areas of Alaska are capable of supplying sufficient quantities of coal for all domestic and industrial purposes of the Pacific coast regions, and if the oil lands of the Territory could be properly developed they would largely add to the supply of gasoline, the demand for which is constantly increasing, while the visible supply is rapidly decreasing.

What has been said of the coal and oil lands applies, but not with the same force, to the timber and water power. Alaska possesses within its borders a number of the finest water powers to be found on the Pacific coast, only a few of which have ever been utilized in any way. There are billions of feet of timber suitable only for wood-pulp purposes. Yet neither the pulp timber nor the unharnessed water powers may be used because existing laws are either inadequate or are such as will not permit the investment of the necessary capital required for development and manufacturing purposes. And yet the world over there is a shortage of paper and prices have soared skyward during recent years. These are the cold facts of the situation, and their presentation should be such as to command the attention of the Federal Government to the end that this distressful state of affairs be remedied as speedily as possible, and that these resources, now going to waste, be utilized for the benefit of the present generation, due care being taken, of course, that the lands from which pulp timber is taken be reforested and that the title to the water powers be retained in the government. The terms granted to intending investors of capital for the establishment of these enterprises should be liberal enough to guarantee a substantial return for the money invested. A hidebound, narrow-contracted, illiberal policy in connection with these resources of Alaska will defer their development indefinitely.

POLITICAL POTTAGE.

The political history of most, if not all, of the Territories of the United States has been marked by trouble and discontent. In the Territories political troubles are from time to time augmented by factional strife, and Alaska has had its full share of both. Discontent with political conditions is natural, for it is through this that reforms are inaugurated and abuses corrected; but factional strife, at least in Alaska, as has been demonstrated, is due to the desire of a few, self-chosen leaders to dominate political conditions for pur-

poses far removed from the altruistic. In other words, factional bitterness develops through an overwhelming desire to secure the loaves and fishes which go with or are supposed to be a part of political patronage. In the minds of political patriots of this type, efficiency of government is the last consideration; the division of office and political pottage and the prestige, power, and emoluments which are supposed to be a part and parcel of office holding the first. All this makes for lack of unity and coordination on the part of the people who, as a whole, are anxious to see as complete political autonomy as is possible under a government of, by, and for the people, and who are also desirous that that government shall be efficiently and honestly administered and that the Territory be developed along legitimate lines.

THE OLD-TIME PROSPECTOR.

Thorough prospecting is a thing indispensable in a mining country. To the pioneer prospector is due the discovery of many of the great mines that have made the western United States notable in mining history. The prospector is essentially a creature of the wanderlust. He has left his mark in many mining regions of the world. In many States of the West he may still be seen, usually with his burro and pack, traversing the trackless desert, looking for "float" rock with a careful and experienced eye and examining it closely with the aid of a glass, pick, and hammer. But it is a matter of current comment that the guild of old-time prospectors is rapidly disappearing, though not yet quite extinct. New methods are now employed, and the new type of prospector, with some scientific attainments, looks for not only gold, silver, and copper, but for the rarer metals as well, and he connects frequently with the assay office. But the passing of the old-time prospector is to be deplored, for after all he filled a place in mining history that will not soon be forgotten.

Prospecting in Alaska is a much more difficult matter than in the mining States of the West. There ledges are found with less search, although prospecting in any country is attended by many hardships. In Alaska the ground is covered by a heavy growth of moss and, added to this, in the coastal regions, especially, is a junglelike growth, almost impenetrable, all combining to make the prospector's work difficult and at times hazardous and always discouraging. And Alaska has been but superficially prospected, even in the well-known mineral zones. It has been but scratched here and there in places less difficult of access and near bases of supply. Although the real prospector may be found in the remoter regions, for the reasons that have been stated, prospecting in the old way promises to become soon a lost art. In some mining countries the prospector receives governmental aid and encouragement, but in this country he has made his own way, fought his own battles, borne his own burdens, satisfied if he were in a measure successful. But the tale of a successful prospector is soon told. Seldom has he profited from his years of labor. Those who came after him frequently secured the reward that should have been his.

SETTLING ON THE LAND.

The population of Alaska, as is to be expected in a new and practically undeveloped country, fluctuates year by year. But there is a gradual increase of the permanent kind. As mining and fishing and agricultural industries are extended new towns and hamlets arise and, in due course, there is a fixed population engaged in various occupations, besides those immediately arising as a result of industries created. A few years ago Alaska had no farming population whatever. Now it is increasing year by year, and there are communities entirely devoted to agricultural pursuits. This increase is especially notable in the Matanuska section of the Cook Inlet country and in the Tanana Valley, where may be found well cultivated farms, which are yearly adding to the number of acres under cultivation. The fishing population has also increased with the expansion of that industry, but there is still a great demand for practical fishermen who will not only follow their calling, but who will settle in Alaska and establish homes. The opportunity is here for a large number of fisher-folk, the same as may be found in such countries as Scotland and in the Scandinavian Peninsula and elsewhere. The white population of Alaska is now probably not more than fifty thousand, although it has been a possession of the United States for fifty years—a slow growth, indeed, when the natural riches of the Territory and the opportunities presented are considered. It is not necessary at this time to discuss the causes behind this slowness of population growth. The Territory has been grossly misunderstood and misrepresented; and it is only in very recent years that its promise and potential value have begun to be realized by the mass of the people of the United States.

Much misinformation still finds a place in the popular mind, but the mists of ignorance concerning it are being slowly dispelled and the publicity of recent years is beginning to bear fruit. There is no doubt of Alaska's capabilities in the way of sustaining a population of several millions, but the growth will necessarily be slow for many years to come; for, with all its advantages, there are disadvantages and handicaps which only the passing years and patience will overcome. Alaska, as has been pointed out in these several annual reports, needs the right kind of publicity. In order to make known conditions prevailing and the opportunities existing for capital and labor and for the man seeking investments and for those seeking lands and homes, where the fierce competition and struggle for a mere living is ever present, it is apparent that systematic and continuous publicity, based on solid truth as far as obtainable, is indispensable. There is no flowery road to the attainment of wealth here, but there is abundant opportunity for comfortable independence within the reach of capable, industrious men and women.

In 1910, as shown by the United States census, Alaska had a population of 64,356, of which 25,331 were classed as Indian. While the white population is without doubt slowly increasing, the native is probably nearly stationary. Improved conditions of living which are now found in many native communities are gratifying and, as a result, less sickness and fewer deaths are reported. The best index as to the increase of white population is shown in the increase in

the number of schools. Not so many years since schools for white children were practically unknown. This year there will be actually in operation more than 100 schools of various kinds, including a number of creditable high schools; and among the white population, although embracing people of many nationalities, there is but a minimum of illiteracy.

THE NATIVES OF ALASKA.

The economic conditions among the native population of Alaska have changed considerably during the past year. Those depending on furs for their main livelihood have not only faced a scarcity of pelts, but have found that prices were below normal on account of the war. On the other hand, the cost of food and other supplies which have to be shipped in from the States has increased 50 to 300 per cent. Added to this, in a good many sections, there has also been a scarcity of fish during the year, which has reduced their winter supply of this food article.

To combat the above conditions, the United States Bureau of Education, through the agency of its teachers in Alaska, issued instructions urging the natives to live as much as possible independently of food supplies and manufactured articles which have to be brought from the outside, and to conserve the native products not only for their own salvation but for the assistance they thereby render the country in the war in which it is engaged. To this end the native, as a farmer, is gradually becoming a factor in the development of the Territory. Through its schools in Alaska, the Bureau of Education is attempting to teach the natives the advantages of having their own gardens in which to raise foodstuffs, not only for their own use, but for the use of miners and others in their vicinity. The products of the Kuskokwim, Kotzebue Sound and upper Yukon regions are very creditable and show great promise. It has been difficult in the past to impress upon the natives the advisability of remaining with their gardens until the crops are assured. They have to combat their natural tendency to leave their homes in order to go fishing. While it is necessary for them to obtain fish as well as vegetables, the two can be combined if handled intelligently.

Under the present laws it is possible for natives to acquire allotments of lands in Alaska. To date their usefulness has been rather doubtful. The allotments as now made are really too small for hunting purposes and too large for farms. The native has not yet reached the stage where he can handle intelligently a 160-acre farm, even if he were in a position to clear it and put it under cultivation. Up to the present it has only been possible for him to handle a good-sized garden. After he has learned the lesson well and the advantages of the latter, he will then be in a position to undertake the cultivation of a five-acre farm.

The native is also learning to avail himself of banking facilities. Through the Bureau of Education in Seattle it has been possible for him, for several years, to send his furs and other products to be sold in Seattle, thereby assuring him the highest returns for his peltry. The money which he has then to his credit is either used in shipping him such supplies as he must have, or, if it is not needed for this purpose, is usually kept by the Bureau for him and placed

at interest. The chief of the Alaska Division is under bond for taking care of these matters for the natives, and in the past year approximately \$20,000 was handled in this manner for them. All such accounts handled by the chief of the Alaska Division are audited quarterly. Those of the natives who desire and are able to handle their own accounts have been given their individual savings and checking accounts.

The natives continue to avail themselves of the Alaska legislative provision of 1915 for citizenship. Also several villages have been organized in accordance with the act passed by the same legislature. Up to the present most of these have been in southeastern Alaska, where the natives appear to be the most progressive. When a village is properly organized, a council manages its affairs in a very creditable manner, and improved conditions are always the result of such management.

The bureau has collected miscellaneous statistics in regard to the native population, and while complete returns have not been received from all sections of the Territory, sufficient statistics have been received to make possible a survey of the natives and their condition. Reports were received from 88 villages in Alaska, having a total population of 9,234. Of this number it appears that 5,028 are adults, 2,655 children of school age, and 1,551 children under school age. Of the 5,028 adults, 1,311 can read and write, and of the 2,655 children of school age, 1,599 can read and write. Of this population there are 53 engineers, 82 pilots, 86 captains, 18 teachers, 28 preachers, 119 carpenters, 306 reindeer men, and 59 miners, the remainder being classified as fishermen and trappers.

Their progress toward adopting civilized habitations may be noted in the fact that of the 2,522 domiciles in which this population lives, 1,509 are frame or log buildings, of which 341 are three-room, 317 two-room, and 851 one-room capacity. Of the entire 2,522 dwellings, but 597 could be classified as shacks or igloos. In addition to these dwellings, 88 villages had a total of 54 community buildings, such as town halls, cooperative store building, etc.

Another interesting phase of the statistics bearing on the progress made by the natives is that relating to means of navigation. A native boat to the average person means a crudely fashioned craft of skins and sinews. While the latter are still in evidence, especially along the Arctic shores, the bureau's statistics show that, in addition to the 431 skin boats and 163 birch-bark canoes, there are 1,325 wooden boats, of which 163 are sailboats of an average tonnage of 4.8 and 208 power boats of 4.9 average tonnage, equipped with 8.4 average horsepower engines. When the fact is taken into consideration that these statistics cover less than 40 per cent of the native population of Alaska, it is remarkable to note how they have availed themselves of modern conveniences and adapted them to their needs. In southeastern Alaska the native fishermen equipped with power boats are no small asset to the salmon industry of the Territory. Most of such boats have been built by the native owners. They not only possess such ability to a marked degree, but the care and handling of gas engines appear natural to them. Their acquisition of civilization's conveniences may be emphasized by the fact that these 9,000 natives own 1,843 sewing machines and such home furnishings as 132 organs, 2,078 clocks, 1,563 phonographs, and 1,837 bedsteads.

The fact that the Alaska natives are not a dependent people can not be overemphasized in order to give them the credit they deserve for successfully fighting for an existence in the face of rapidly changing conditions, caused by coming in contact with the white man. Although the native has had to rearrange his mode of living and, to a certain extent, his method of securing his livelihood, he has rarely been forced to ask for aid. The Bureau of Education has, during the past year, expended but \$2,000 for the relief of destitution. That is 8 cents per capita, based on a native population of 25,000. In most cases the relief was given only on account of temporary destitution, and return of wood and labor was received in payment of the supplies given. The net amount expended for destitution, therefore, is almost negligible. With a little foresight on the part of the Federal Government, the natives' future and permanent independence can be assured.

In such sections of Alaska where reindeer have been distributed the natives' economic independence is already established. However, such sections are restricted to the coastal regions, western, and north-western Alaska. The value of the reindeer industry to the natives of Alaska can not be overestimated, and the introduction of this industry into Alaska will ever remain a noteworthy example of one of the Government's constructive policies. The Bureau of Education, to whose credit the successful management of the industry belongs, having thus established its ability to deal with the problems of the natives, should be given by Congress the additional means it needs and has asked for for so many years with which to establish the natives of the entire Territory on a permanent economic basis.

The present appropriation for the education of the natives of Alaska, \$200,000, is the same as it was in 1908. It is obviously impossible for the bureau to enlarge its work, provide for vocational training, establish boarding schools, etc., when every dollar is needed to maintain the school service already established. When the vast territory that has to be covered is taken into consideration and the fact that the native communities rarely exceed two or three hundred in number, together with the cost of reaching most of the isolated native villages and the ever-increasing cost of supplies and material necessary to a school system, it is surprising that the bureau is able to maintain its 70 schools on such a small appropriation and secure the results which have been obtained. Congress must be made to realize the importance of providing adequately for the natives of Alaska. They already bear their share of the taxes. Quite a number are availing themselves of citizenship, as well as organizing their villages. Given the means to properly guide the natives in their acquisition of civilization, the Bureau of Education should have no difficulty in transforming the natives into self-reliant and useful citizens. They are unquestionably an asset to Alaska, and their development is of paramount importance to the best interests of the Territory. In addition to the increased educational appropriation, the Bureau of Education should have at its disposal a reimbursable fund with which to establish industries among the natives. Since the majority of natives live in their own communities, the establishment of such industries would not mean competition with white enterprise, but rather the development of native resources within these communities. The success of the cooperative stores already established in nine vil-

lages without the aid of Government funds demonstrates what can be done along this line under proper supervision. Two of these native store companies not only do a general mercantile business but manage sawmills which produce lumber for their own communities and for neighboring towns as well.

For obvious reasons the Bureau of Education has encouraged the establishment of larger villages. This end is secured by a policy of setting aside selected tracts through Executive orders for the use of natives exclusively, and the establishment thereon of suitable and attractive industries. The bureau is thus able to secure a maximum amount of benefit for a larger number of natives than is possible when they are scattered in more or less isolated and small villages. This policy at present is in its infancy, but sufficient progress has been made to clearly demonstrate its feasibility in parts of Alaska. Much along this line can not be done, however, unless appropriations are available with which to launch the industrial enterprises necessary to the success of such native reserves and to maintain and equip schools adequate to meet the needs of natives attracted to such reserves. These reserves are in no sense to be confused with the Indian reservations of the States. The reserves in Alaska are set aside merely for the use of natives, and residence upon them in no way curtails the freedom of the native. In his present state he is no match for his keener white brother and his interests must, therefore, be protected. Equally important with his educational and industrial development is the proper care of the native's physical well-being. Here again the vast area to be covered and the scattered villages to be provided for make the task colossal. The native of Alaska has great recuperative power and needs in many cases only a little medical aid or advice. This can usually be given by the teacher, if a native school is at hand. There are, however, many chronic cases in practically every village which are in most urgent need of a physician's care and treatment. Having an appropriation of but \$50,000 the Bureau of Education is utterly unable to cope with the situation.

Trachoma, tuberculosis, and venereal diseases are the most common of their afflictions and must be combated energetically to save the natives from extermination. Unless the appropriations for medical relief keep pace with those for educational and industrial matters, the latter will be practically useless. The responsibility for this lack of attention lies wholly with Congress. The needs, particularly the medical, have been presented to Congress time and again by various agencies, with no result except appropriations that are inadequate and that can not possibly meet the needs of the situation. When one considers that a seaman with but 60 days' service has at his disposal free medical and hospital care under the United States Public Health Service in any United States port, whenever it is needed, it seems rank discrimination to permit the natives of Alaska, who are practically helpless without such aid, to go unattended. Not only is it necessary to provide this aid for the sake of those afflicted, but also for those who may yet remain well. Equally important is the consideration for the white population, as the physical deficiencies of the natives, unless promptly attended to, become a menace to their white neighbors.

THE ALASKA NATIVE SCHOOL SERVICE.

Seventy schools, of which two were summer schools only, were maintained by the Bureau of Education during the past year. The total enrollment was 3,600. Most of these schools included the elementary grades only, presided over by one of the teachers. In some of the larger villages more advanced work, up to the eighth or ninth grade, was done, as at Metlakatla, Hydaburg, Unalakleet, Wales, and Barrow, where from three to six teachers are employed. The curriculum covered includes not only the three "R's," but such practical subjects as manual training, domestic science, agriculture, sanitation and hygiene; and, in order that the adults may have similar advantages, evening classes are held in the school rooms and meetings for the women of the villages are held afternoons at regular intervals. Thus the entire village comes in contact with the school and enjoys its benefits. The influence of these schools, therefore, can not be gauged by reports of the enrollment of the day school.

Quite often the teachers are the only white people in the native communities and the natives, therefore, naturally look to them for guidance, counsel, and assistance in matters concerning their welfare. In addition to the school-room duties the teachers devote themselves to "settlement" work and by practical advice and example improve the modes of living of their villagers. The teachers in this service must, therefore, not only possess pedagogical ability, but must be all-around, practical people who can be of service to the entire community. Each school is also provided with a well-selected assortment of medicines with which to alleviate the minor ailments and sufferings of the people. The more medical knowledge a teacher possesses the more effective is this important phase of the work. The school-room work of the native boys and girls makes a very creditable showing, comparing very favorably with that done in white schools. During February a southeastern Alaska school fair was held at Metlakatla at which exhibits from most of the schools of the district were shown. Delegations from Klawack and Hydaburg attended and the usual contests between these two schools and Metlakatla were events of the week. Properly engraved certificates were awarded to the victorious contestants and the owners of the best exhibits. This fair was the first of its kind and will probably be an annual event, being not only of benefit to the native children and an inspiration for their best efforts, but also an opportunity for the teachers of the schools to compare methods and be of mutual assistance. The industrial work which is of such importance to the natives is gradually being developed. The progress which has been made, however, has been handicapped because of a lack of funds. Just as important as a practical education is to the native children is the assistance which adults need along industrial lines. Enough has been done to demonstrate that such an investment is secure and will bring a very satisfactory return. However, this has been accomplished practically without Federal aid. If a large number of natives are to be taught industrial independence a reimbursable fund is necessary, which can be used for the launching of native enterprises, properly supervised, returns to the fund being made by annual installments, the fund thus replenished being used in the launching of other enterprises. The Bureau of Education has for several years asked for \$25,000 for this

purpose and it is to be hoped that it will be granted at the next regular session of the Congress.

There are at present 10 native cooperative store companies in Alaska, whose local affairs are supervised and the books kept by the teachers located at the places where the stores are maintained. Two of them have sawmills with which they produce lumber for local use and wherever a market may be had. The accounts of these store companies are annually audited. By an adequate accounting system which makes possible definite statements in regard to business, these native companies are of invaluable educational benefit to the native stockholders. They are uniformly successful and are a credit to the natives, having been capitalized with their own money and credit received from Seattle wholesale houses, and are managed entirely by themselves, except for the advice and oversight of the teacher.

Agriculture is being developed through school gardens with very gratifying results. These school gardens may be found in almost every section of Alaska, and through this agency not only the interest of the younger generation is being stimulated, but that of the entire village. The energy expended on their gardens will bring especially good returns this year, when the prices of food of all kinds are almost prohibitive. By a large production of vegetables and the storage of large quantities of dried fish, canned berries, and other local products, the natives can live almost independently of outside supplies, thereby contributing materially to the conservation of food in the United States.

Another interesting phase of the industrial work in connection with the native school is being developed on Atka Island. As an experiment, two head of cattle were shipped there by the Bureau of Education five years ago. This small herd has now increased to eight head. A silo has been erected, the ensilage being made of the luxuriant grass of the island, on which the cattle seem to thrive.

Not a small share of the success of this school service is due to the well organized supervision given the schools. The Territory is divided into five districts, each of which is in charge of a superintendent directly responsible to the chief of the Alaska division in Seattle. These superintendents are required to visit each school at least once a year, which, in addition to always being in close touch with the local conditions of each school, makes a uniform and efficient school system possible. The superintendents travel by means of regular steamers, launches, dog teams, and reindeer. In the western and northwestern districts, the reindeer is the only means of transportation used by the superintendents during the winter; and the hundreds of miles traversed by them is indisputable proof of the feasibility of reindeer for transportation. In order to properly protect the natives' interest, the rules and regulations of the service forbid its employees from engaging in trade for profit. During the years of its existence, there has been but one noteworthy example of the transgression of this rule. This occurred at Wainwright, Alaska, during the fiscal year 1915-16. The teacher in charge and his wife traded with the natives during the winter for white fox skins to such a successful extent that when the skins were sold upon their arrival in Seattle the following summer they found themselves tem-

porarily richer by the net profits of over \$3,000. Action against them was immediately taken by the Bureau of Education and one-half of the amount was recovered for the Wainwright natives. This money was used the next year as a nucleus for a cooperative store at that place. The matter was settled by compromise and a larger recovery would have been probable except for the fact that it was claimed that the trading had been done by the teacher's wife, who was not under actual appointment by the Bureau of Education. The amended regulations now apply to all members of the teacher's family who reside with the teacher in quarters furnished by the bureau.

A very important need of the bureau for the successful conduct of its schools is a power schooner. The bureau must necessarily place its schools where the natives have their villages. Consequently many are located out of the paths of the regular transportation lines. Hence every summer the bureau is hard put to secure suitable vessels in which to ship the annual supplies to these inaccessible places. Usually such suitable vessels have to be paid exorbitant rates to induce them to call at these points. Added to this is the uncertainty of these vessels making such calls before navigation closes. Of paramount importance is the safety of the people who are sent as teachers. The means by which it has been necessary to get the teachers to some of these posts are without question hazardous and inadequate. The people who are willing to undertake the work at these lonesome stations should not be asked to take all these unnecessary risks to their lives and the inconveniences which at present are required of them. If the bureau had a boat of 350 or 400 tons capacity, it could carry teachers and deliver the supplies promptly, safely, and economically. To reach the stations in the Bering Sea and the Arctic Ocean, except the few that are ports of call for regular steamers, is an ever-present worry to the officials of the bureau. After such a boat had served its usefulness, it could be used as a training ship for the native boys of southeastern Alaska. This phase alone, were no other considered, should justify the acquisition of the boat in question.

THE METLAKAHTLA INDIANS.

Affairs at Metlakahtla assumed a somewhat more definite shape during the past year. The legality of the fishery reserve having been reaffirmed by the circuit court of appeals, definite plans for the development of this interesting colony are now being formulated. While the Bureau of Education would have preferred to have handled the colony on a native cooperative basis, sufficient capital could not be raised. Neither were Federal appropriations available for this purpose. The fire in May, 1916, which destroyed the old cannery buildings, automatically canceled the agreement with the P. E. Harris Co. for the rehabilitating and operation of the cannery for a period of five years. Negotiations were, therefore, opened for again leasing the cannery and fishing privileges of the island. Two good offers were made—by J. L. Smiley and C. L. Burkhardt. The bid of the former was considered the more attractive by the council of Metlakahtla and the Interior Department and was accepted. Under the terms of the agreement the cannery is to be rebuilt in

time for use during the season of 1918, beyond which the cannery is to be operated for four additional years. At the end of this period the revenues accruing from the contract, consisting of 1 cent per fish for all fish taken from the reserve by the lessee, are expected to be sufficient to enable the Interior Department to take over the property of the lessee, after which the cannery will be run by the native cooperative company which was organized in 1916, under the name of the Metlakahtla Commercial Co. This company is now doing a general mercantile business and is managing the sawmill, which has produced most of the lumber for the new cannery buildings which are nearing completion at the present time. Originally organized with a capital of \$2,295, the present paid-up stock of the Metlakahtla Commercial Co. is \$7,375. A continued growth will place this company on a firm financial basis and will enable it to take over the cannery at the expiration of the present lease. Through the means thus afforded, the economic restoration of this colony is assured, not only in the final possession of the cooperative cannery but the wages and incomes thus assured the inhabitants during successive years. Considerable opposition to this reserve has at times been evidenced by various people, but the opposition invariably, it would seem, reveals selfish motives.

Alaska has miles and miles of territory in which the progressive white man is well able to secure a good return for his energy. Efforts which aim at the overthrow of the protection given a few Indians through the setting aside of a small island in order that they may live happily and contentedly must be condemned. If it were possible for the objectors to view the matter from a broad, humanitarian standpoint, their objections would unquestionably cease. The repeated statement that the Annette Island fishery reserve was made for the benefit of "foreign" Indians who migrated from British Columbia fails of itself when confronted with the fact that over three-fourths of the inhabitants of Metlakahtla were born in Alaska. The Metlakahtlans are already one of the most progressive tribes in Alaska, and if the Bureau of Education is left unhampered by outside influence this native community will undoubtedly become one of the most prosperous and contented in the Territory. The bureau has already established an excellent day school whose efficiency will be increased when the present building is completed. The remaining wing will include a gymnasium, an auditorium, shower baths, domestic-science and manual-training rooms, two additional schoolrooms, and a small surgery. Added to this will be the machine shop of the lessee of the cannery, which will be available during the winter for the classes from the school. With this equipment as a nucleus, the way is opened, with but a little additional outlay, for a small boarding and industrial school for advanced pupils from southeastern Alaska.

At present many native children are sent to the States to attend the Cushman and Chemawa schools, under the Bureau of Indian Affairs, for advanced training as well as elementary education. This course has proved very disastrous, as the change in climate usually impairs their health to such an extent that tuberculosis is contracted, after which the decline is rapid, and the complete change in environment has a fatal effect upon the pupils' future usefulness. The conditions under which pupils live in the training schools are radically

different from their previous environments. The trades they learn are frequently useless when they return to their homes, and the ideas and views of life which are the result of the life at a school where every act is according to a well-ordered program, which thereby displaces individual responsibility, make it difficult for them to readjust themselves to the environment of the native villages when they again reach their home. All this, combined with impaired health, makes such pupils practically failures when they return home. The training schools for these native pupils must be located in Alaska, under conditions similar to their previous environments, where health will not be impaired but rather improved on account of supervision and where only such practical subjects will be taught as will be useful to them in the future.

NEEDS OF THE SERVICE.

The needs of this service may, therefore, be summed up in four main points, all of which are dependent on increased appropriations from Congress:

First. More schools. As already shown, actual schoolroom work, while important, is but a small part of the beneficent results of the establishment of a school in a native community. There are numerous villages in Alaska of sufficient size to more than justify the establishment of schools.

Second. A reimbursable fund with which to establish industrial enterprises among the natives as an insurance for economic independence.

Third. A power schooner to be used as a freighter and as a training ship.

Fourth. An industrial training school in southeastern Alaska for advanced pupils.

THE ALASKA NATIVE MEDICAL SERVICE.

This service is under the Bureau of Education, with the advice and cooperation of the United States Public Health Service. The appropriation for this work for the past year was \$50,000, which was \$25,000 more than the first appropriation ever made for medical relief among the natives, granted the previous year. Before that a portion of the educational appropriation had been used for this purpose. The present appropriation just about covers the work previously supported under the educational fund. The past year a well-equipped and complete hospital was maintained at Juneau, having a capacity of 20 patients and a staff consisting of a physician, three nurses, an orderly, janitor, cook, and interpreter. From the fact that the hospital was kept filled the greater part of the year, one may judge of the long-felt need it is filling and the great service it is to the native population of southeastern Alaska. Small hospitals, housed in former school buildings, were also maintained at Kakanak on Bristol Bay, and Nulato on the Yukon, each of which was in charge of a physician and one nurse. The one at Kakanak is now being enlarged and altered, which, upon completion, will make it a modern and complete hospital of 11 beds capacity. In addition to the three physicians in charge at these hospitals, the bureau had under

appointment a physician at Nome and at Cordova, and contracts with physicians at Council, Candle, and Ellamar. In addition to the nurses at the three hospitals, a nurse was stationed at St. Michael, Koggiung on Bristol Bay, and Akiak on the Kuskokwim; also two traveling nurses in southeastern Alaska. Contracts for the care of native patients were also made at Nome, Ellamar, Anchorage, and Seattle. The last-named was a children's orthopedic hospital, to which Alaska native children were sent for special treatment.

Each school has a carefully selected stock of medicines and supplies, which constitutes a small dispensary with which the teacher ministers to the ailments of the inhabitants of the village in which the school is located. Anyone at all familiar with the extent and geography of Alaska will realize instantly the handicap the Bureau of Education is laboring under in attempting to minister to the local native needs with such a limited appropriation. Much has been written and said concerning the relief which the natives should have. Without this relief all other plans for them are necessarily futile. An analysis of the situation causes one almost to agree with the pessimistic alternative that the Congress should either attend to the needs of the natives in a comprehensive and sufficient manner or else do nothing at all and allow the race to die out as quickly as possible. While the service now rendered in the few places mentioned is efficient and valuable, the total results are meager when compared with the total native population. It is almost incomprehensible that Congress, which provides for the Indians of the States with such a lavish hand, can not grant a few thousands to a people who have never been charges of the Government and who ask for only a little assistance to their own efforts to make them useful and self-reliant citizens.

The Bureau of Education could easily make excellent use of an appropriation of \$200,000. With this sum an effective medical service could be organized with which to meet the needs of these people. While the vast extent of the Territory will always be a handicap in covering this field, the sum mentioned would make possible the establishment of additional hospitals and appointments of physicians at strategical points in the Territory, where the greatest number of serious cases could be treated, and the appointment of nurses in communities not sufficiently populated to justify the establishment of a hospital large enough to warrant the services of competent nurses.

As tuberculosis is so prevalent among the natives, special attention should be given to this disease. The bureau's estimates include the construction of tubercular cabins in connection with the hospitals at Akiak and Kanakanak and the erection and maintenance in the Chilkat Valley of a tubercular sanitarium of 50 beds. It is to be sincerely hoped that this, as well as the other plans for this urgent work, will be speedily realized. The establishment of hospitals for natives is not only of benefit to the native people, but also to the whites. The present hospitals, excepting Juneau, are, and the proposed hospitals will be, located in sections not served by white hospitals. The appropriation act is so worded as to permit the admission of white patients, and this provision has already proved a godsend to sick and injured miners and prospectors.

There is at present no definite arrangement in regard to supplying the needs of natives in villages where Territorial schools are located. The bureau holds that when white inhabitants of such a village have secured a Territorial school for their community the bureau is not justified in continuing its school in a place where the total population, both native and white, is not large enough to support two schools. Upon the withdrawal of the native school, the bureau no longer has a representative in such a community and is, therefore, not in a position to attempt to look after the natives. It also holds that, since the Territorial school was voluntarily requested, the accompanying responsibility for the care of all the inhabitants and their interests is thereby assumed by the Territorial authorities. However, these local school boards have renounced this responsibility and the Territory has been unable to assist in the matter. Consequently the natives in these communities receive no attention at all. Were the bureau's appropriations sufficiently large to meet the needs of the natives this question would not arise. Under the present conditions, however, the bureau must expend its funds where the greatest benefits to the natives will accrue, and the communities sufficiently populated with white people to justify a Territorial school are not considered as dependent on the bureau's oversight as are more purely native villages.

ALASKA REINDEER SERVICE.

Statistics for the year ending June 30, 1917, are not yet available, but a conservative estimate would place the total number of reindeer in Alaska at 95,000. This large number is the result of the introduction into Alaska, in 1892, of 1,280 reindeer from Siberia. The statistics for the year ending June 30, 1916, show a total of 82,151 reindeer, distributed among 85 herds. Of this number, 56,045, or 58 per cent, were owned by 1,293 natives; 3,390, or 4 per cent, by the United States; 5,186, or 6 per cent, by missions; and 17,530, or 22 per cent, by Laplanders and other whites. That this industry is of paramount importance to the natives interested is recognized in the fact that the income of the natives from this industry, exclusive of meat and hides used by themselves, amounted to \$91,430. That the reindeer industry has proved a successful enterprise from a financial standpoint is seen in the following table:

Valuation of 56,045 reindeer owned by natives in 1916, at \$25.....	\$1, 401, 125
Total income of natives from reindeer, 1898-1916.....	470, 837
Valuation of 26,106 reindeer owned by missions, Laplanders, and other whites and the Government in 1916.....	652, 650
Total income of missions and Laplanders and other whites from reindeer, 1898-1916.....	146, 926
Total valuation and income.....	2, 671, 538
Total Government appropriations, 1898-1916.....	312, 000
Gain (756 per cent).....	2, 359, 538

This industry was introduced into Alaska for the sole purpose of making the natives economically independent in such portions of Alaska to which the industry could be adapted. In this the industry has been eminently successful. The distribution of the deer has now been firmly established and the natives affected thereby are assured of

a livelihood that is usually limited only by the individual's energy. Even in such sections where conditions are not favorable to the opportunities to realize any financial returns from reindeer, his her provides the native and his family with food, clothing, and transportation, which are sufficient in themselves to prevent him from becoming a charge to the Government.

The distribution of the deer has been accomplished through a system of apprenticeship whereby a native serves four years as apprentice, at the end of which time he owns the deer called for by the contract of apprenticeship, namely, 6 deer the first year, 8 the second, and 10 each the third and fourth years. Having satisfactorily served his apprenticeship, he then becomes a herder and assumes charge of his herd. Each herder is required by the rules and regulations to take apprentices under the same terms that he himself served as apprentice. The distribution is thereby perpetuated and will continue long after the Government itself owns no deer.

While the primary object of the industry is to assist the natives and for this reason has been restricted to them as much as possible, the past three years have seen the entrance of the white man into the enterprise. The rules and regulations forbid natives to sell female deer, except to natives. However, certain Laplanders who were brought to Alaska for the purpose of instructing natives in the care of deer, for which they received reindeer, were not subject to this restriction and consequently a herd of about 1,200 deer was acquired by Lomen & Co., of Nome, during 1914. During 1915 this company, desiring to increase its herd and not finding any more Lapp deer conveniently available negotiated a purchase of about 1,000 deer from herds of the Swedish Evangelical Mission Covenant of America at Golovin. These herds were the result of a loan of deer made to the mission during the earlier days of the industry; when it was the desire of the Bureau of Education to distribute the deer as quickly as possible. The appropriations being small and the philanthropic enterprise being in line with missionary work, it was thought that the loan of a small herd to each mission in the field, with the understanding that the same method of distribution to the natives should be used as in the Government herds, would be of mutual assistance and would aid materially in the rapid distribution of the deer. Some of the earlier contracts covering such loans were drawn very loosely. It appears the Golovin mission's loan was made under oral agreement with the then local missionaries. Years later the missionaries had changed and the agreement was gradually forgotten, so that when the offer of about \$18,000 was made by Lomen & Co. it was forthwith accepted. The matter has since been the subject of controversy between the bureau and the mission board, in which the former has tried to show the board that, although the legal reasons may be poor, the board is morally bound to preserve the original objects of the introduction of deer into Alaska, namely, the distribution among the natives. The final disposition of this matter depends on the outcome of litigation at present under way, in connection with a later and similar violation of the Norwegian Evangelical Lutheran Church at Teller which, in 1916, sold about 300 deer to Lomen & Co. The loan to this mission is covered by written contract, which it is alleged has been deliberately broken

by the mission in its sale of female deer to other than natives. The matter is now in the hands of the Department of Justice and its final outcome will be important, since it will affect the status of all deer now held by missionary organizations in Alaska.

Four reindeer fairs were held during January and February at Akiak on the Kuskokwim, Shatolik in the Norton Sound region, Igloo on Seward Peninsula, and Noatak in the Kotzebue Sound district. These fairs were largely attended by natives and whites who are interested in the reindeer industry. The usual contests enlivened the week's festivities. Lectures were given daily on various phases of the work; discussions were held and many controversies arising in connection with the ownership of deer and the personal affairs of herders and apprentices were settled by a native council, elected by the delegates to the fairs. These conventions have now become permanent annual affairs, and their importance to the natives and the industry can not be rated too highly. The rivalry engendered makes for increased interest and renewed efforts in the various phases of reindeer work. The annual comparison of methods means increased efficiency of herders and apprentices, and the amicable settlement of differences which invariably arise between reindeer men results in harmony and good-fellowship.

The needs of this service may be summarized in an increased appropriation for the purpose of employing two specialists, whose duties will be to introduce methods for improvement of breeding and scientific handling of the deer; to investigate reindeer diseases and establish means of combating them, and to give special attention to all matters pertaining to the improvement of the industry. This enterprise has now assumed proportions that make it imperative that it be handled in a scientific manner. The present appropriation of \$5,000 is, and the past appropriations have been, only large enough for the work of distributing the deer among the natives. Because of a lack of funds this distribution has necessarily been limited and very gradual. The time has now arrived when this industry must be handled with due respect to its size and importance. That Federal appropriations invested in this enterprise bring a magnificent return has already been proved. Congress should, therefore, not hesitate in providing additional means for continued improvement and scientific management of this industry.

FISHERIES.

Of the natural resources of Alaska the fisheries stand next in importance to the mineral wealth. For many years after Alaska became an American possession the fisheries, although undeveloped to anything like their present importance, far exceeded the mineral values; later for a period of several years the mineral and fisheries outputs were approximately of equal value, and in the last two years, with the great increase in the production of copper in Alaska, the value of the annual output of minerals is considerably in excess of that of the fisheries. It is noteworthy, however, that since Alaska was purchased in 1867 the total value of the fisheries, including aquatic furs, is only a few million dollars less than the value of the mineral products. Unlike certain other industries, copper mining for instance, the business need not be carried on at the expense of

the future in any degree whatever. With mining each year's output decreases by exactly that amount the wealth which will ever be available. With the fisheries a year's output does not necessarily reduce the supply of future years at all.

Although the waters of Alaska now yield fishery products to the value of \$27,000,000 or more a year, it is not believed that the maximum production has been reached, although it is likely that the salmon fishery has been developed as far as it is safe to go without endangering the future supply. The waters of Alaska teem with herring and cod, and it is undoubtedly possible to develop these fisheries much beyond their present stage. Particularly is this true of the herring fishery. Steps have been taken this year by the Bureau of Fisheries to increase the utilization of herring and, in addition, to develop the use of other species of good fish which heretofore have not been given much attention by commercial fisherman. It is hoped that this commendable effort can be continued.

The salmon fishery is the most important to Alaska; the halibut fishery is next in value, while the cod, herring, and whale fisheries represent other important phases of the industry. There are other species of fish in Alaska waters that, in the course of time, will assume importance commercially. Among these are trout, grayling, whitefish, rockfish, eulachon, and others. The various species of trout, found in abundance in Alaska waters, offer attractions to the angler. Crabs, clams, mussels and shrimps are also abundant.

The clam canning industry has recently developed to considerable extent in the central district of Alaska. This industry can be carried on all the year round and gives promise of considerable extension, there now being some four or five canneries in actual operation at Cordova and other points in the Prince William Sound region. Another recent innovation in fishery development work is the utilization of shark skins for the manufacture of leather. This work has been fostered by the Bureau of Fisheries and is yet in a somewhat experimental stage, but promises soon to be of considerable importance. The introduction of the Scotch-cure method of preparing herring will also be of great benefit to the Territory. This work was taken up in Alaska for the first time in 1917, as a result of efforts of the Bureau of Fisheries.

Dr. C. H. Gilbert, of Stanford University, has been in Alaska this year, under the auspices of the Bureau of Fisheries, for the purpose of studying the life history of the salmon and undertaking other features of scientific research which may throw valuable light on the future management of the salmon fisheries of the Territory.

SALMON HATCHERIES.

In the fiscal year 1917 six salmon hatcheries were operated in Alaska, two by the Government and four by companies engaged in salmon canning. Companies engaged in salmon canning who operate hatcheries approved by the Government, are allowed to deduct from taxes due on their canned product an amount equal to 40 cents for each 1,000 red or king salmon fry released. In the fiscal year 1916 the five privately owned hatcheries operated that year produced 67,713,000 red salmon fry, thereby earning \$27,085.20 for their owners.

In the season 1915-16 the total number of young red or sockeye salmon liberated was 142,964,140, of which number 72,251,140 were released from the Government hatcheries. In the calendar year 1916, red or sockeye salmon eggs were taken to the number of 171,566,000; of this 80,414,000 were taken from the two Government hatcheries, and 1,016,000 at a privately owned hatchery which ceased operation on June 30, 1916, turning over to the Government the eggs on hand. In the same year 39,079,600 humpback salmon eggs were collected in connection with the operation of the Government hatcheries. Complete returns in regard to the results from the egg take of the calendar year 1916 are not yet available.

NUMBER OF PERSONS EMPLOYED.

In 1916 there were employed in the fisheries of Alaska 23,994 persons, of which 12,449 were whites, 4,793 natives, 1,831 Japanese, 2,371 Chinese, and 2,550 miscellaneous, consisting of Filipinos, Mexicans, negroes, Porto Ricans, etc. In 1915 the grand total was 22,462, or 1,532 less than in 1916.

MONEY INVESTED.

In 1916 the investments in the fisheries of Alaska amounted to \$39,569,612. This was an increase of \$2,253,052 over 1915. The investment in the salmon canning industry alone amounted to \$34,100,853, or approximately 86 per cent of the total. Other industries in which the investment exceeded a million dollars were the halibut fishery, \$2,149,311, and the whale fishery, \$1,091,471. Of the total investment in 1916 about \$16,500,000 was in southeast Alaska, \$7,130,000 in central Alaska, and \$15,930,000 in western Alaska.

QUANTITY AND VALUE OF PRODUCTS.

In 1916 the value of products of the Alaska fisheries, exclusive of aquatic furs, was \$26,156,559, which exceeded the corresponding figures for 1915 by \$5,187,216. In both quantity and value the output of the fisheries of Alaska in 1916 was greater than in any previous year. The summary of the products of the Alaska fisheries in 1916 shows that there were produced 4,900,627 cases of canned salmon, valued at \$23,269,429; 3,920,400 pounds of mild-cured salmon, valued at \$397,628; 17,734 barrels of pickled salmon, valued at \$212,667; 1,480,515 pounds of fresh (including local) salmon, valued at \$118,316; 863,406 pounds of frozen salmon, valued at \$34,408; 60,622 pounds of dry-salted, dried, and smoked salmon, valued at \$3,723; 5,672,118 pounds of fresh (including local) halibut, valued at \$407,422; 5,724,023 pounds of frozen halibut, valued at \$268,319; 68,958 pounds of fletched halibut, valued at \$2,368; 30,458 pounds of pickled and mild-cured halibut, valued at \$1,354; 14,302,364 pounds of cod, valued at \$518,797; 6,839,200 pounds of herring, valued at \$216,640; 19,850 cases of canned herring, valued at \$132,330; 188,926 gallons of herring oil, valued at \$47,231; 875 tons of herring fertilizer, valued at \$21,875; 717,500 gallons of whale oil, valued at \$291,500; 90,500 gallons of sperm oil, valued at \$29,750; 2,272,000 pounds of whale fertilizer, valued at \$41,000; 1,873 pounds of whale-

bone, valued at \$1,471; 50,822 pounds of frozen trout, valued at \$3,647; 17 barrels of pickled trout, valued at \$193; 530 cases of canned trout, valued at \$3,095; 304,141 pounds of sablefish, valued at \$11,185; 27 barrels of Atka mackerel, valued at \$270; 45,200 pounds of red rock cod, valued at \$1,294; 116,667 pounds of miscellaneous fresh fish, valued at \$9,333; 10,093 cases of clams, valued at \$35,622; 72,005 pounds of shrimps, valued at \$3,636; 3,880 pounds of shrimp fertilizer (shells), valued at \$114; miscellaneous by-products, oil, fertilizer and meal, valued at \$47,925; 450 shark hides, valued at \$4,000; and 2,700 gallons of shark oil, valued at 1,350.

THE SALMON INDUSTRY.

The salmon industry continues to be by far the most important fishery industry of Alaska. There are five species of salmon in Alaskan waters, all of which are of commercial value. Based on the value per case in 1916, when canned the most valuable is the red or sockeye, followed by the king or spring, the coho or silver, the humpback or pink, and the chum or keta, in the order named.

The principal methods of preserving salmon are canning, mild-curing, and pickling. They are also dry-salted, dried, and smoked. In addition to an increased use of fresh salmon in Alaska, fresh and frozen salmon are exported from the Territory.

Salmon are taken in Alaska principally by means of seines, gill nets, and pound nets or traps. In 1916 the total number of purse and haul seines amounted to 434, as compared with 362 in use in 1915. The number of gill nets operated was 3,051 and the number of pound nets 373.

The total number of salmon taken in Alaska in 1916 was 72,055,971, divided among the several species as follows: Cohoe, or silver, 2,453,331; chum, or keta, 7,380,714; humpback, or pink, 31,807,963; king, or spring, 680,720; and red, or sockeye, 29,733,243. In respect to each species there was an increase over the take in 1915, when the total was 63,537,244, or 8,518,727 less than in 1916.

Salmon canning.—The most important output of the salmon fishery is canned salmon. In 1916 the investment in the salmon canning industry amounted to \$34,100,853, of which \$12,730,402 was in south-east Alaska, \$6,326,029 in central Alaska, and \$15,044,422 in western Alaska. The investment in 1916 was \$2,818,528 greater than in 1915, when the investment was \$31,282,325. This increase was distributed over all three of the sections mentioned. The number of persons engaged in the salmon-canning industry in 1916 was 19,240, an increase of 1,499 over 1915. The output of canned salmon in 1916 consisted of 4,900,627 cases, valued at \$23,269,429, as compared with 4,500,293 cases in 1915, valued at \$18,653,015. The pack and value, according to species, in 1916, were as follows: Cohoe, or silver, 261,909 cases, valued at \$1,399,491; chum, or keta, 724,115 cases, valued at \$2,420,600; humpback, or pink, 1,737,793 cases, valued at \$6,330,185; king, or spring, 65,873 cases, valued at \$353,420; and red or sockeye salmon, 2,110,937 cases, valued at \$12,765,733. In 1916 there were operated in the salmon industry 100 canneries, as compared with 85 in 1915.

Mild curing of salmon.—In the past the mild-curing industry has been dependent largely on markets now closed by the war. How-

ever, new markets for mild-cured salmon are being developed both in this country and elsewhere. Mild-curing operations in Alaska are confined almost altogether to the southeastern district. In this industry in 1916 the number of fixed plants operated was 12; the value of the investment, \$519,580; and the total number of persons employed, 1,793. The product amounted to 3,920,400 pounds, valued at \$397,628, of which all but 9,600 pounds, valued at \$1,080, was produced in southeastern Alaska.

Other salmon industries in 1916.—The salmon pickling industry involved an investment of \$340,887, gave employment to 277 persons, and yielded a product of 17,734 barrels, valued at \$212,667. Seven companies engaged in the freezing of salmon. There were frozen 863,406 pounds of salmon, valued at \$34,408. Shipments of fresh salmon amounted to 1,480,515 pounds, valued at \$118,316, and it is estimated that an additional 230,000 pounds, valued at \$18,000, were consumed locally. Dry-salted, dried, and smoked salmon products amounted to 60,622 pounds, valued at \$3,723.

A growing business in Alaska, worthy of encouragement, is that of making by-products from waste materials of salmon canneries. In 1916 there were manufactured in southeastern Alaska from these materials 40,750 gallons of oil, valued at \$20,150; 505 tons of fertilizer, valued at \$22,425; and 214 tons of fish meal, valued at \$5,350.

It is a pleasure to note that the statement in the corresponding report for 1916 in regard to the preliminary returns, indicating that the product of the salmon fishery for the season of 1916 would be considerably less than in 1915, did not correctly forecast the situation in any respect.

Although the returns for 1917 are not yet complete, it is likely that the product of the salmon fishery will exceed that of 1916. In the operations now in progress exceptionally heavy runs of salmon have occurred in regions where heretofore there has been a falling off in the catch. This is particularly true of the Icy Straits and Chatham Straits sections of southeast Alaska, where, during a part of the current season, the canneries have been taxed to the utmost to take care of the unusually heavy run. This is a fortunate circumstance, coming as it does at a time when the international situation demands as large a production of aquatic foods as possible.

HALIBUT.

Second in importance only to the salmon industry is the halibut fishery. That portion of the halibut fishery of the North Pacific Ocean which should properly be credited to Alaska is difficult of determination. A large portion of the halibut caught in extra territorial waters are taken by the fishing vessels direct to Prince Rupert or to Puget Sound ports. In the past two or three years a situation has developed which threatens to entail serious loss to the Pacific coast ports of the United States which handle halibut. The completion of the Grand Trunk Pacific Railway through to Prince Rupert, in British Columbia, permits that port, assisted by governmental aid, to compete successfully with the ports of the United States in handling halibut taken by vessels belonging to the United States. The controversy which has arisen has resulted

in proposed legislation by Congress and in diplomatic correspondence, but no definite settlement has as yet been made.

Statistics for 1916, based on halibut landed in Alaska and the shore stations, vessels, and equipment used in connection therewith, are as follows: The investment amounted to \$2,149,311, as compared with \$2,842,800 in 1915; the number of persons employed was 1,116, or 339 less than in 1915; and the product amounted to 11,495,557 pounds, valued at \$679,463, as against 15,417,789 pounds, valued at \$781,011, in 1915.

COD.

The demand for cod for foreign markets stimulated the cod fishery in 1916, and the take would in all probability have been larger had it not been for the great demand for vessels for other purposes. The Alaska cod fishery is carried on (1) by means of vessels which sail from the ports of the Pacific coast States to the fishing grounds and transport their catches direct to their home ports, and (2) by operations carried on in connection with shore stations, where the fish are salted and later shipped to the States by transporting vessels.

The investment in the Alaska cod fishery in 1916 amounted to \$564,212, a decrease of \$6,778 from 1915. The number of persons employed was 778, an increase of 31 over 1915. The total production of cod in Alaskan waters in 1916 was 14,302,364 pounds, valued at \$518,797. This was an increase over 1915 of 106,589 pounds and of \$128,598 in value. Of this production 10,579,177 pounds, valued at \$376,290, were credited to the vessels operating from ports of the Pacific Coast States. In the 1916 product there were included 22,488 pounds of canned cod, valued at \$2,337, packed at a salmon cannery in western Alaska.

HERRING FISHERY.

Herring are utilized in a variety of ways—for bait, fresh and frozen; for food, pickled, smoked, canned, and dry-salted; and at one plant a part of the operations is the manufacturing of oil and fish meal. The canning of herring in Alaska was initiated in 1916 at Port Walter. The total investment in the herring fishery of Alaska in 1916 amounted to \$509,046, an increase of 140 per cent when compared with that of 1915. The number of persons employed was 392, an increase of 234 as compared with the previous year. The products were valued at \$418,076, an increase of \$262,497 over 1915. The herring industry in Alaska is at present confined largely to the southeastern district.

In connection with an active campaign which has been inaugurated this year by the Bureau of Fisheries to interest the fishery trade in the important matter of utilizing aquatic products and resources which have been more or less neglected, special attention has been given to establishing the Scotch-cure method of processing herring—an important industry in Europe, but heretofore unknown in Alaska. The bureau engaged experts to instruct the fishermen and arouse their interest in this method. The product is regarded in most markets as superior to that resulting from the more simple Norwegian process of pickling herring. This new work is already so firmly established that in 1917, the first season the process has

been tried, Alaska will probably produce upward of 20,000 barrels of Scotch-cured herring, in addition to a large quantity of herring prepared in the Norwegian style. The production of Scotch-cured herring alone in Alaska this year will probably exceed the total quantity of Alaska herring pickled in the Norwegian style last year.

WHALES.

Shore whaling and offshore operations in Alaska are variable in character and of comparatively little importance. The following statements refer only to those operations which are carried on in connection with shore stations in Alaska. The investment in 1916 amounted to \$1,091,471, a decrease of \$362,379 as compared with 1915. The number of persons employed was 233, an increase of 29 as compared with 1915. The product was valued at \$363,721, which was \$18,029 less than the value of the product in 1915. In 1916 there were taken 389 whales, or 81 less than in 1915.

MINOR FISHERY PRODUCTS.

Clam canning, as an industry independent of other fishery operations, has recently been undertaken in Alaska. Two plants have been established at Cordova, and the actual canning of clams there was begun in 1916. In 1916 the investment in the industry was figured at \$157,943; the number of persons employed was 78, and the output, consisting of clams and clam juice, was 10,093 cases, valued at \$34,622. Other minor fisheries in 1916 were concerned with dolly varden and steelhead trout; output valued at \$6,935; sable fish (formerly known as black cod) product valued at \$11,185; Atka fish (Atka mackerel), red rock cod, crabs, mussels, shrimps, and sharks.

FUR-SEAL SERVICE.

The food requirements of the native inhabitants of the Pribilof Islands determined the number of fur seals to be killed there in the calendar year 1916. On St. Paul Island the number of seals killed was 3,483, and on St. George Island, 2,985, a total of 6,468 for the Pribilofs. The number of fur-seal skins shipped from the Pribilof Islands in 1916 was 706. On September 20, 1916, there were sold by Funston Bros. & Co., at St. Louis, Mo., 1,900 fur-seal skins from the Pribilof Islands. These skins, before being sold, had been dressed, dyed, and machined at the new sealskin dyeing plant at St. Louis. The establishment of this plant marks a new epoch in the sealskin business in this country, and the initial results of its operation have been highly satisfactory. The 1,900 skins brought \$74,530, gross, or an average of \$39.22 per skin. A second sale of Pribilof Island sealskins dressed, dyed, and machined, was held on January 29, 1917, when 2,000 skins were sold for \$93,678 gross, or an average of \$46.84 per skin; and the third sale of 1,500 skins, held April 18, 1917, amounted to \$68,540.50 gross, or an average of \$45.69 per skin. The sale of September 20, 1916, was the first of the Pribilof Island sealskins since that of December 16, 1913, the skins on hand having been withheld from sale on account of unfavorable market conditions.

A census of the fur-seal herd at the Pribilof Islands was again taken in 1916. Following is a table showing the results of the censuses taken in the years 1912 to 1916, inclusive:

Censuses of fur-seal herd, Pribilof Islands.

Classes of seals.	1912	1913	1914	1915	1916
Breeding bulls.....	1,358	1,403	1,559	2,151	3,500
Breeding cows.....	81,984	92,269	93,280	103,527	116,977
Idle bulls.....	113	105	173	673	2,632
Young bulls (chiefly five-year-olds).....	199	259	1,658	.....	.....
Six-year-old males.....	.....	.....	.....	.....	11,167
Five-year-old males.....	.....	.....	.....	11,271	15,494
Four-year-old males.....	100	2,000	9,939	15,845	15,427
Three-year-old males.....	2,000	10,000	13,880	18,282	19,402
Two-year-old males.....	11,000	15,000	17,422	23,980	24,169
Yearling males.....	13,000	20,000	23,068	30,307	33,645
Two-year-old cows.....	11,000	15,000	17,422	23,980	24,245
Yearling cows.....	13,000	20,000	23,067	30,306	33,646
Pups.....	81,984	92,269	93,280	103,527	116,977
Total.....	215,738	268,305	294,687	363,872	417,281

Owing to the varying conditons from year to year, the figures for certain components of the herd are not entirely comparable, but in every case it is believed that the number of seals present fully warranted the number stated. The number of pups and the number of breeding bulls have been the subject of actual count for each of the years stated in the table. The number of breeding cows is equal to the number of pups of the season. The number of these three classes of pups, breeding bulls, and breeding cows are therefore comparable with the corresponding classes from year to year.

Incidental to the administration of the Pribilof Islands by the Department of Commerce is the management of the fox herds of those islands and the taking of fox pelts as a source of revenue to the Government. In the season 1915-16, there were taken on St. Paul Island 211 blue fox pelts and 18 white fox pelts; on St. George Islands, 209 blue and 2 whites, or a total for the Pribilofs of 420 blues and 20 whites. These skins were shipped from the Pribilofs in June, 1916, and were sold by Funston Bros. & Co. at St. Louis on September 20, 1916. The 420 blue fox skins brought \$20,242 gross, or an average of \$48.20 each; and the 20 white fox pelts, \$285 gross, or an average of \$14.25 each. In the season of 1916-17 there were taken on St. Paul Island 150 blue fox pelts and 37 white fox pelts, and on St. George Island 417 blues and 2 whites, a total for the Pribilofs for the season of 567 blues and 39 whites.

MINOR FUR-BEARING ANIMALS.

Field work was continued as extensively as practicable throughout the year by employees of the Bureau of Fisheries, but the lack of funds made necessary considerable curtailment of this work in the latter half of the fiscal year.

Fox farming continues to receive considerable attention, and it is hoped that the business is becoming established from year to year on a better basis. Undoubtedly the falling off in the demand for live fox as breeding stock for shipment to points outside of Alaska, has caused some to abandon their operations. As a whole, fox farming will be successful or not according to whether foxes can be

profitably reared for their pelts, and probably the same condition will apply to Alaska. Attention has been given the problem of domesticating minks and martens, and some success has been secured in breeding and rearing martens in captivity.

Complaints are made from time to time alleging the use of poison for killing fur-bearing animals. It is very hard to get evidence which will secure convictions by juries, and some complaints are undoubtedly based on little or no evidence, while others are shown by investigation to be entirely warranted.

The Department of Commerce has continued its policy of assembling and compiling statistics of shipments of furs from Alaska. All shippers are required to report their shipments to the Bureau of Fisheries of that department. The post office cooperates in connection with shipments made by mail, while the collector of customs at Juneau cooperates in respect to other shipments. The value of the furs shipped from Alaska, including those from the Pribilof Islands, in 1916 was \$1,143,600, as compared with \$515,950 in 1915, and \$763,931 in 1914. The following table shows the quantity and value of the furs shipped from Alaska in the period from November 16, 1915, to November 15, 1916, as compiled by the Bureau of Fisheries. The table differs in form from the corresponding one published in the annual report of the governor of Alaska for the fiscal year 1916 in that shipments of furs from the Pribilof Islands are now included.

Kind.	Number of pelts.	Average value.	Total value.
Bear:			
Black.....	1, 129	\$9. 00	\$10, 161. 00
Brown.....	41	7. 50	307. 50
Glacier.....	5	50. 00	250. 00
Grizzly.....	14	14. 00	196. 00
Polar.....			
Beaver.....	1 37	6. 50	240. 50
Ermine.....	4, 345	. 80	3, 476. 00
Fox:			
Black.....	26	250. 00	6, 500. 00
Blue.....	659	50. 00	32, 950. 00
Blue, Pribilof Islands.....	420	48. 20	20, 242. 00
Cross.....	2, 508	26. 00	62, 700. 00
Red.....	15, 711	12. 00	188, 532. 00
Silver gray.....	318	150. 00	47, 700. 00
White.....	6, 178	20. 00	123, 560. 00
White, Pribilof Islands.....	20	14. 25	285. 00
Hare, Arctic.....	1, 090	. 15	163. 50
Lynx.....	21, 608	12. 00	259, 296. 00
Marten.....	3, 100	9. 00	27, 900. 00
Mink.....	22, 255	4. 00	89, 020. 00
Muskrat.....	101, 827	. 35	35, 639. 45
Otter:			
Land.....	1, 530	15. 00	19, 950. 00
Sea.....	1	500. 00	500. 00
Seal, fur, Pribilof Islands.....	7, 061	30. 00	211, 830. 00
Squirrel.....	214	. 10	21. 40
Wolf.....	57	7. 00	399. 00
Wolverine.....	297	6. 00	1, 782. 00
Total.....			1, 143, 601. 35

¹ Thirty-three shipped under permit.

² Found dead.

LEASING OF ISLANDS FOR FUR FARMS.

A bill was introduced in Congress in January, 1916 (H. R. 10393, 64th Cong., 1st sess.), which included, among other provisions, one for transferring from the Secretary of Agriculture the authority

to lease certain islands along the coast of Alaska. The bill, however, failed of enactment into law.

In the calendar year 1916 one additional island (Marmot) was leased and the lease of Carlson (Grafton) Island to the Moose Bay Fur & Trading Co. was canceled. The islands under lease on December 31, 1916, were as follows:

Island.	Annual rental.	Lessee.
Middleton.....	\$200	Joseph Itbach, of Valdez, Alaska.
Simeonof.....	250	J. C. Smith, of Sand Point, Alaska.
Little Koniuj.....	205	Andrew Grosvoild, of Sand Point, Alaska.
Marmot.....	200	O. L. Grimes, of Kodiak, Alaska.

TERRITORIAL FISH COMMISSION.

The Alaska Legislature, session of 1917, enacted a law providing for the construction of fish hatcheries and for the protection and care of natural spawning grounds in the Territory and the creation of a board of fish commissioners. The law appropriates \$80,000 from the Territorial treasury for the purposes mentioned. The board of fish commissioners consists of three members, appointed by the governor for a term of two years, the governor also being ex officio a member of the board. The commission in its work will cooperate with the Bureau of Fisheries. One or more hatcheries will be erected at suitable points, streams will be cleared of obstructions and of the enemies of the young salmon fry as far as possible, and the young fry will be held until well developed. Many salmon streams are filled with obstructions of various kinds, and these will be removed, thus affording the fish opportunity to reach the spawning grounds with little difficulty. If the fund at the disposal of the commission will permit, a patrol of important fishing streams will be maintained, as under present conditions it is a fact well known that the law pertaining to salmon fishing is constantly violated, especially during the salmon season, the funds at the disposal of the Bureau of Fisheries being entirely inadequate to employ a sufficient personnel to enforce the law.

It is submitted that the time has arrived when the salmon and other fisheries of Alaska should be passed to the control of the Territory in all respects save that of scientific direction, which should remain in the hands of the Bureau of Fisheries. The Territorial legislature, in making appropriations for the erection and maintenance of hatcheries, as noted above, clearly demonstrates its willingness to render substantial aid in the conservation and protection of the salmon fishery, whose importance as a valuable Territorial and national asset is fully realized.

In some sections of the Territory, as noted in the general article herewith, there have been phenomenal runs of salmon, while in others there has been a decided falling off, apparently, of course, without known reason in either case. The ways of the salmon, like those of a ship in the midst of a sea, an eagle in the air, or a serpent upon a rock, seem not to be definitely known.

ALASKA'S MINERAL SUPPLIES.

The following, which treats of the available mineral reserves of Alaska that are now in special demand or that may be in special demand during the war, is abstracted from a report by Alfred H. Brooks, formerly director of the work of the United States Geological Survey in Alaska, but now serving his country in an official capacity in France.

The Territory is now producing copper, gold, and silver in large quantities and making a smaller output of antimony, tungsten, tin, lead, petroleum, coal, etc. The output of some of these minerals could be increased without great delay. There is a possibility also that platinum, chromite, molybdenite, and other undeveloped mineral deposits known in Alaska may be able to furnish a supply during the present emergency. Mr. Brooks divides Alaska's mineral reserves into three groups—one including those so inaccessible at the present time as not to form a part of the available supply; the second includes the mineral reserves which, though now inaccessible and undeveloped, could be made available by one or two years of preparatory work; and the third group, constituting the most available but much the smallest part of Alaska's mineral wealth, includes the developed deposits lying on or near established transportation routes. In the latter group fall not only the deposits on tidewater and railroad, but also those in inland districts that are accessible for a part of the year by river transportation.

GOLD AND SILVER.

A large increase in Alaska's gold production under present conditions is hardly to be expected. The present high prices affect gold mines more adversely than any other industry, for they involve a relative decrease in the value of the production. The constantly increasing cost of equipment, supplies, and labor maintained during the war make gold-mining ventures less attractive to capital than under ordinary conditions. The most promising field for an immediate increased gold production is in the placer districts. The most of these lie far from the coast or in regions difficult of access. Moreover, great reserves of auriferous gravels, on which the future of the industry depends, have a low gold tenor, and their profitable exploitation depends on the installation of machinery—a matter that involves much time and capital. Hence even public-spirited operators who might be willing, for the sake of increasing the gold output, to operate at the lesser profits which war-time conditions involve, could hardly bring an enterprise to a productive basis in less than two years. It is not intended by this statement to imply that the production of placer gold will fall off while the present economic conditions prevail, but only to point out that a greatly increased output can hardly be expected. There are, however, a number of large placer-mining plants that have been under construction for a year or more, and some of them may yield gold this year to help swell the total. Moreover, in many Alaska districts there are rich deposits that are being mined by simple methods and will continue, as in the past, to be the source of a large part of Alaska's placer-gold output. In 1916 the value of placer gold produced in Alaska was \$11,140,000; in 1915, \$10,480,000.

The conditions described above as affecting gold placer mining are still more important in gold lode mining. The mining of siliceous, auriferous ores has been on the increase for a number of years until 1916. The value of the gold output from this source was \$5,912,736 in 1916 and \$6,069,023 in 1915. Of the total output in 1916, over \$4,500,000 came from the large, low-grade mines of the Juneau district. These great enterprises, which depend for their economic success on the handling of large tonnage at a small margin of profit, are more directly affected by the present adverse economic conditions than the smaller mines working on ores of high value. The recent serious accident to the great Treadwell group of mines will reduce the gold output of the Juneau district. It is probable that there will be an increased gold output from the small mines of the Willow Creek and Prince William Sound districts, but these will for the present not be sufficient to offset the decrease in the Juneau output. Therefore the present outlook indicates that the production of lode gold in Alaska will be less in 1917 than it was in 1916.

Alaska's silver output, which in 1916 amounted to 1,379,261 ounces, valued at \$907,554, has practically all been won incidentally to the mining of gold and copper. Though the Territory contains some argentiferous galena deposits, these are almost undeveloped. Of the silver produced in 1916, over 1,200,000 ounces came from the copper lodes.

COPPER.

The increase in the output of copper, due to high prices for that metal, is the most striking feature of Alaska's recent mining history. In 1914 the copper output from Alaska's mines was 21,450,000 pounds; in 1915 it was 86,500,000 pounds, and in 1916 it was 119,600,000 pounds. In 1916 eighteen copper mines were operated in Alaska, but much the larger part of the output came from three large mines—two in the Copper River region and one on Prince William Sound. It is unfortunate that the maintenance of a large copper output is greatly dependent on a continued operation of two large and very rich mines in a single district, for if, by any accident to mining or transportation, operations and shipments from this district should be interrupted, there would be a tremendous curtailment of the annual copper yield. The maintenance of Alaska's copper output is of importance under present conditions and every encouragement should be given to the development of other properties, especially those of the Pacific seaboard. A large number of mines, especially on tidewater, would give far greater assurance of a steady copper production than the present conditions. The small copper producers of Prince William Sound and the Ketchikan district met with some discouraging conditions in 1917. In spite of the high price of copper, they were unable to obtain either sufficient transportation for their ore or any assurance that the smelters would handle it if it could be shipped. The full development of the only other mine in this district is hampered by the lack of transportation. Up to the present time its shipments have been made only in the winter. There are in this general region other properties which, if connected with the Copper River Railroad by aerial trams and spurs would ship ore. Most of these have not been developed sufficiently to reveal any very large tonnage of ore.

Any census of Alaska copper reserves that might be made available during the next two years, however, must take these into account. The best hope of an immediate increase of the copper output is in the developement of the lodes along the Pacific seaboard. In 1916 there were nine productive copper mines in the Ketchikan district and six on Prince William Sound. In these two districts there are almost a dozen other copper properties which have been sufficiently developed to justify the hope that they could be brought to a productive basis within the present year. These properties, together with the 15 that made an output in 1916, if developed to their full capacity, would probably increase their output of 1916 by ten to twelve million pounds in 1917.

To sum up the copper mining situation, there is good reason to believe that if the high price is maintained, the Alaska copper output will probably be larger in 1917 than in 1916. The best hope for an immediate and considerable increase is by providing better shipping and smelting facilities for the mines of the Pacific seaboard. Should the war make still larger demands for Alaska copper, it is probable that within two years, a still greater increase in the copper output could be brought about by providing means of transportation from such deposits of the Kotsina and Chitina districts as are now unproductive.

TIN.

Placer tin has been mined in the York district of Seward Peninsula since 1902. The total tin output of Alaska, up to the end of 1916, was 767 tons of metallic tin. This total includes a small output of lode tin from the York district and also some placer tin from the Hot Springs district in the Tanana valley. Alaska produced 139 tons of metallic tin in 1916 and 102 tons in 1915. The present urgent demand and consequent high prices of tin will undoubtedly lead to a greater output the present year. Most of the tin now produced in the York district is the product of two dredges. There are a number of tin-bearing placers in this field, but even at the present prices, they can probably not be profitably exploited except by the use of dredges.

There are a number of tin-lode prospects in the York district, from two of which some production has been made. In 1917 a mill was installed at one of these mines and its output should help swell the tin production during 1917. The York tin mines are worked only during the summer and the shipping season is limited from about June to October. Stream tin is rather widely distributed in the Hot Springs district, but, as yet, few of the placer mines make any effort to save it. If they could be induced to save and ship their stream tin it might materially increase the total output of the Territory. It is probably safe to state that the Alaska tin production of 1916 could be doubled in 1917—that is, it could be brought up to nearly 300 tons of metallic tin. However, it is not at all likely that the output will reach this amount.

TUNGSTEN.

Though scheelite has long been known to occur in placers of the Fairbanks, Iditarod, and Nome districts, it has only recently been

found in lodes. In 1915 a scheelite-bearing lode was opened near Fairbanks and some shipments of ore were made by parcel post, brought to the coast by winter mail. Other scheelite-bearing deposits were developed in the Fairbanks and also in the Nome district during 1916. Meanwhile some of the operators of dredges in the Nome and Iditarod districts began to save scheelite from concentrates.

Wolframite and scheelite occur in some of the tin ores of the York district of Seward Peninsula, but these deposits have been only slightly developed. Wolframite has also been found in association with some gold placer of the Yukon Tanana region. In 1916 a little wolframite, won from placers, was shipped from the Birch Creek district. In all about 47 tons of tungsten-bearing mineral concentrates, chiefly scheelite, were shipped from Alaska in 1916, about 30 tons of which came from Seward Peninsula. All this output came from the districts that are open to transportation during only a part of the year.

ANTIMONY.

Stibnite, as has long been known, is very widely distributed in Alaska, but it is only the stimulation of war prices and the demand of the last two years that has caused any of this ore to be mined. In 1915 the output of stibnite ore was 833 tons; in 1916 it was 1,458 tons. Most of this ore came from the Fairbanks district, where a half-dozen mines have been developed on a small scale. Some ore has also been shipped from the two mines in the Nome district. Transportation from both of these districts is limited to the open season.

The most accessible of Alaska's antimony lodes is one located in the Ketchikan district, where little development work has been done. Some stibnite-bearing lodes are known on Prince William Sound, on Kenai Peninsula, and in the Nizina district, but so far as has been ascertained none of these has been sufficiently developed to determine whether the ore occurs in commercial quantities.

LEAD.

The total lead output of Alaska mines is 2,080 tons, of which 820 tons was produced in 1916, 437 tons in 1915, and 28 tons in 1914. Most of the lead has been recovered from gold ores. The large increase in the output of the last two years is due to the development of the large lode mines of the Juneau mainland belts which carry considerable galena. Some lead was also recovered from galena ores shipped from several localities of Alaska. Galena-bearing lodes occur in the Ketchikan and Wrangell districts of southeastern Alaska, and these afford a possible field for comparatively rapid development. A test shipment of galena was made in 1916 from the Fairbanks district. The ore also occurs in the Fish River Basin, Seward Peninsula, and has been reported in the Broad Pass region and in the Mentasta Pass region, in the Koyukuk district, and in numerous other localities. Few, if any, of these occurrences are near enough to transportation to justify the hope that they could be made to contribute to the lead supply, even if the ore bodies are large enough to justify development.

PLATINUM.

Small quantities of platinum have been found in a number of placer districts in Alaska. Traces of this metal occur in the copper ore of the Goodro mine in the Ketchikan district. In 1916 the Alaska placer miners began to pay attention to the finding of platinum, and as a result about 10 to 12 ounces were recovered, chiefly from placers of the newly developed Koyuk district in the southeastern part of Seward Peninsula, also from Bear Creek in the Fairhaven district of Seward Peninsula, and from Slate Creek in the Chistochina district of the upper Copper River Basin. It is not known that there are in any of these districts placers which could be profitably worked for their platinum content alone. Platinum has also been found on Boob Creek in the Tolstoi region of the Innoko district. Prof. Herschal C. Parker reports considerable platinum in the gravels of the Kalhiltna River. Small quantities of platinum are also reported in the beach placers of Lituya Bay and of Red River on Kodiak Island. Less definite information has been received of the presence of platinum in some of the creeks of Kenai Peninsula.

The outlook for some platinum production from Alaska during the next two years is hopeful, though as yet there is not a single mine in the Territory that has produced more than a few ounces. More definite information about the occurrences mentioned will be available at the close of the present year, after certain field investigations are completed.

CHROMITE.

It has long been known that some chromite deposits occur on the southwest end of Kenai Peninsula. Two localities of this mineral are known—one near Port Chatham and the other about 7 miles inland from Seldovia. It is not known whether these deposits are of commercial size, but they are being examined this season. Their association with ultrabasic rock suggests that they might also carry platinum. Some small veins carrying chromite have been found near Tolovana in the Yukon-Tanana district.

NICKEL AND COBALT.

A copper lode recently discovered near Pinta Cove, on the west side of Chichagof Island in the Sitka district, southeastern Alaska, is reported to carry nickel and a little cobalt. Nickel is also reported to have been found in a lode not far from Spirit Mountain in the lower basin of the Copper River. Some years ago a copper-bearing lode, which was reported to carry nickel, was found near Canyon Creek in the same general region. Little is known about the geology of these localities where nickel has been reported or the extent of the deposits. They are being investigated this summer. Both are accessible throughout the year, one being on tidewater and the other probably not over 10 miles from the railroad.

QUICKSILVER.

Quicksilver-bearing lodes occur on the lower Kuskokwim River and in adjacent parts of the Yukon Basin. The most accessible of

these deposits and the only ones that have been prospected are on or close to the Kuskokwim River. The best known of these prospects is the Park property on the west branch of the Kuskokwim, about 300 miles from its mouth. Here some cinnabar ore has been retorted and the quicksilver thus produced was sold to the placer miners of Seward Peninsula. There has been some prospecting of other quicksilver deposits in this general region, but, so far as known, no properties have been sufficiently developed to give assurance of a definite output. The deposits could be made productive with little equipment, but there is no information on which to base an estimate of their possible quicksilver yield.

MOLYBDENITE AND BISMUTH.

Molybdenite-bearing lodes are reported to have been found near Skagway and on Lemesurier Island in southeastern Alaska; on Canyon Creek, a tributary of the upper Chitina River which flows into the Copper River, and in the Willow Creek district. It is not known whether any of these lodes are large enough to permit of commercial development. The molybdenite deposits of southeastern Alaska and of the Willow Creek district are readily accessible throughout the year. No molybdenite has been produced in Alaska.

A small bismuth-bearing vein has been found on Charley Creek in the Nome district, but is undeveloped. Bismuth has been found in gold prospects at two localities in the Tanana Valley—on Eva Creek, a tributary of Totatlanika Creek, and on Melba Creek in the Fairbanks district—but nothing is known of the extent of these deposits.

IRON.

Iron ores are rather widely distributed in Alaska. Magnetite occurs in association with some of the copper deposits of the Ketchikan and Iliamna districts and also in a deposit near Haines in southeastern Alaska. In the Lake Clark district there is a vein of specular hematite, carrying some copper. Considerable bodies of iron ore have been found in the Nome district. Most of these deposits are undeveloped. If there were a demand for iron on the Pacific coast, some iron ores could be made available in a comparatively short time.

PETROLEUM.

Petroleum has been found in four districts along the Pacific seaboard. These are the Yakataga field, which is comparatively inaccessible on account of the lack of a harbor; the Katalla field, which is the only one that is producing oil and which can be made tributary to Controller Bay without great expense for construction and without great loss of time, or can be reached by an easily constructed sixty-mile branch from the Copper River Railroad; the Iniskin Bay field, on Cook Inlet, and the Cold Bay field on the Alaska Peninsula. The last two are tributary to harbors that are free of ice throughout the year. Drilling has not been sufficient, in the partly developed field at Katalla, to determine the presence of any considerable pools. The rather wide distribution of seepages and the results of the drill-

ing of some 25 holes indicate that oil might be obtained in this field in a much larger quantity than now yielded by the five or six wells that are being pumped.

The petroleum from this field, like that from other Alaska fields, is a high-grade refining oil, with paraffin base. Oil of this grade is now in great demand for manufacturing gasoline, and as the supply under war conditions may not meet the needs, every encouragement should be given those who are willing to spend money necessary for the drilling. Unless a large pool is struck early in the operations, which is not believed probable, it will take at least a year to drill a sufficient number of holes to assure any considerable production. This statement is based on the records of the existing wells. The producing wells are shallow and the oil has to be pumped. To meet the present emergency it will probably be best to drill a large number of shallow wells rather than to attempt to test the ultimate possibilities of the field by sinking deep holes. The above statement of conditions of the possibilities in the Katalla field probably holds in general for the Iniskin and Cold Bay fields. In these fields, however, there has been very little drilling and no production. The geological structure of these fields, as far as known, is smaller than that of the Katalla field, and it is, therefore, easier to direct operators to the most probable location of pools. The Alaska oil lands were withdrawn from entry in 1910. A small area of oil land has been patented in the Katalla field and other claims are still pending. If the Alaska oil fields are to be regarded as possible sources of refining oil during the present emergency, immediate action should be taken to free the operators and obtain freehold or leasehold titles to sufficient areas to justify the large expenditures necessary for drilling.

MISCELLANEOUS MINERALS.

There is one gypsum mine on the east side of Chichagof Island, in southeastern Alaska, which has been a steady producer of gypsum for a number of years. Graphite deposits of commercial quality and extent are found on the north side of the Kigluik Mountains in Seward Peninsula. Two of these deposits have been opened and have yielded some graphite, though none has been shipped. Two barite deposits are known in Alaska, one in the Wrangell district and one in the Ketchikan district.

Sulphur is known to occur on Makushin volcano, Unalaska Island, at the east end of the Aleutian chain. This deposit has been but little prospected and its extent is unknown. Makushin volcano is about 5,700 feet high, and its summit lies about six miles from Makushin Bay, the nearest harbor. Unalaska Island is unforested and all timber for use in construction would have to be brought from a distance.

NATIONAL FORESTS OF ALASKA.

According to data furnished for this report by the Alaska Forest Service of the Department of Agriculture, the total receipts of the Tongass and Chugach National Forests during the fiscal year ended June 30, 1917, were \$66,718.46. The total cost of administering the two forests for the same period was \$45,770.30.

The total number of applications received for homesteads on the Tongass National Forest, under the act of June 11, 1906, is 220; of this number 47 were received during the last fiscal year. The total number of applications for homesteads on the Chugach National Forest is 393, of which 78 were received during the last fiscal year. The total number of acres listed as agricultural on the Tongass National Forest is 5,519, of which 1,570 acres were listed during the last fiscal year. The total number of acres listed on the Chugach National Forest is 23,914, of which 12,457 acres were listed during the last fiscal year. Twenty-two patent surveys have been made by the Forest Service on the Chugach and 19 on the Tongass. Many other homesteads on the Chugach, ready for patent survey, have been covered by the land office survey. The total number of timber sales made in the Tongass and Chugach forests during the last fiscal year was 460. The total amount of timber cut is 53,978,340 board feet. There were cut and delivered to the Alaskan Engineering Commission for the new railroad as ties, piles, and saw timber from the Chugach National Forest 9,141,000 board feet during the fiscal year 1916 and 7,358,000 board feet during the fiscal year 1917.

Occupancy permits now in effect on the Tongass National Forest number 416, of which 126 were issued during the last fiscal year. Occupancy permits now in effect on the Chugach number 227, of which 68 were issued during the last fiscal year.

A crew of six men during the summer of 1917 estimated and mapped 50,000 acres of pulp timber and gathered other data for the use of the public interested in the manufacture of pulp and paper.

Nine miles of good trail, at a total cost of \$8,000, was built by the Forest Service during the fiscal year ended June 30, 1917, 2½ miles along the Karta River and Lake, and 6½ miles from Hadley to Kasaan Prince of Wales Island. These trails both open up very promising mining districts. The Stikine River trail was extended 4 miles during the summer of 1917 at a cost of \$4,000, and 2,000 feet of plank road was built at Warm Springs Bay, Baranof Island, at a cost of \$2,000, and the dangerous rocks blasted out of Kenai River between Kenai and Skilak Lakes at a cost of \$400. With the exception of the cleaning out of Kenai River and \$2,000 paid by the Alaska Road Commission on the Stikine River trail, the above work was paid for out of the 10 per cent received from the national forests.

The Forest Service, in cooperation with the Geological Survey, is continuing and increasing its investigations of water power in southeastern Alaska, which were begun in June, 1916. Twelve Stevens automatic gauges are now making a continuous record of the flow of the same number of streams. In establishing these gauges they were distributed throughout southeastern Alaska so as to reach all the principal mining districts and regions containing large quantities of timber suitable for the manufacture of pulp and paper. They are visited monthly by the Forest Service boats for the purpose of winding, taking the record, and making meter readings.

The national forests are not "reserves," as every natural resource within their boundaries is available for use now.

ALASKA'S MINERAL PRODUCTION.

Alaska's mineral production for the calendar year 1916 was the greatest in its history, amounting to \$50,900,000, as compared with \$32,850,000 in 1915. The increase in 1916 was, therefore, over 54 per cent, this being due to the greatly increased copper production, which amounted to 120,850,000 pounds, valued at \$32,400,000. There was also a small increase in the gold output, which in 1916 was \$17,050,000, and in 1915 it was \$16,700,000. In 1916 of the gold produced \$10,640,000 was from placer mines. Alaska also produced in 1916 silver, lead, tin, antimony, tungsten, marble, gypsum, and coal to the value of \$13,000,000. During 32 years of mining, Alaska has produced \$351,000,000 of gold, silver, copper, and other minerals, or nearly fifty times the price paid Russia for the Territory. Of this amount \$278,000,000 represents the value of the gold and \$68,000,000 that of the copper.

For the calendar year 1917 the total mineral production is not likely to be as great as that of 1916. The gold output will probably show a decrease, due to the exhaustion of the richer placer areas in interior Alaska, the high price of fuel necessary in mine operation in the same region, and a labor shortage affecting nearly the entire Territory. A labor strike in the Kennecott mines of the Kennecott Copper Corporation at Kennecott, which, however, was not of long duration, may curtail the output of copper to a limited extent, although this condition may be offset by the increased production of a number of smaller mines in different parts of the Territory. Much of the placer ground of the Tanana Valley region can not be worked at a profit to the operators under the present conditions. Fuel is yearly becoming more costly, and until cheaper fuel and power can be obtained the placer mining industry of that section must languish. This also applies to gold lode mining of the interior. When the Government railroad shall have reached the Nenana coal fields and coal mines are opened commercially this condition will be obviated, but not before.

The output from gold lode mines of the present calendar year will inevitably show a decrease from that of the preceding year, due to the labor shortage and the consequent lessening of the mining operations and the greatly increased cost of supplies of all kinds necessary in the mining industry. Added to this was the loss of three mines of the Alaska Treadwell Gold Mining Co. in southeastern Alaska in April last, by flooding. Mining operations in these mines had extended under the waters of Gastineau Channel, which broke through the roof, completely flooding the mines and entailing a heavy financial loss. It is stated that no attempt will be made to rehabilitate the property. An adjoining mine, the Ready Bullion, was not flooded and is still being worked.

The Alaska-Juneau Gold Mining Co. in May of this year completed a new mill, one of the finest in the world, with a capacity of 8,000 tons of ore daily. The operations of this company, however, are curtailed by reason of the shortage of labor.

The following statement is abstracted from the annual report on mineral resources and production in Alaska in 1916 by Alfred H. Brooks, of the United States Geological Survey, Department of the Interior:

MINERAL PRODUCTION.

The value of Alaska's lesser mineral products in 1916 was: Silver, \$950,000; tin, \$120,000; lead, \$110,000; antimony, \$60,000; tungsten, \$50,000; coal, \$30,000; petroleum, marble, gypsum, etc., \$130,000.

GOLD PLACER MINING.

The value of the placer gold output in 1916 was \$10,640,000; in 1915 it was \$10,480,000. About 640 mines were operated in 1916, employing some 4,600 men. All the other districts it appears held up or increased their output, compared with the previous year, except Fairbanks. The increased output is, however, to be credited chiefly to the new camps of Marshall and Tolovana. Thirty-six gold dredges were operated in Alaska in 1916, one more than in 1915—29 in the Seward Peninsula, 3 in Iditarod, and 1 each in the Ruby, Fairbanks, Circle, and Yentna districts. Of these 36 dredges 4 were installed in 1916. It is estimated that these dredges produced between \$2,000,000 and \$2,200,000 worth of gold. In 1915 the 35 dredges mined \$2,330,000 worth of gold.

GOLD LODE MINING.

About 25 gold lode mines were operated in 1916, compared with 28 in 1915. The value of this gold output increased from \$6,069,000 in 1915 to \$6,200,000 in 1916. Southeastern Alaska, especially the Juneau district, is still the only center of large quartz mining development in the Territory. Next in importance is the Willow Creek lode district. There was also considerable gold lode mining on Prince William Sound, but a very decided falling off in this industry in the Fairbanks district. Lode mine owners of Fairbanks are awaiting the cheapening of operating cost, especially of fuel, which will be brought about by the Government railroad.

COPPER MINING.

The enormous copper production from Alaska mines in 1916 has already been referred to. During the year 18 copper mines were operated, compared with 13 in 1915—7 in the Ketchikan district, 8 in the Prince William Sound district, and 3 in the Chitina district. The enormous output from the Kennecott mine in the Chitina district overshadowed all other operations. Had transportation companies and smelters been able to handle ores, many of the small copper mines would have made a much greater output. It was estimated that about 550,000 tons of copper ore was hoisted in 1916.

TIN MINING.

About 232 tons of stream tin was produced in Alaska in 1916. Of this amount 162 tons came from the York district, where two tin dredges were operated, and the third was working on placer ground carrying both tin and gold. Developments were also continued on the Lost River lode tin mine. The rest of the concentrates were recovered incidentally to placer gold mining in the Hot Springs district of the lower Tanana Basin.

ANTIMONY MINING.

The mining of antimony ore (stibnite) began in Alaska in 1915 and continued in a small way through the first half of 1916. The fall in the price of antimony during the midsummer put an end to most of these operations. About 1,460 tons of crude ore was mined and shipped during 1916. The larger part of this came from the Fairbanks district.

TUNGSTEN MINING.

Though scheelite has long been known to occur in some Alaska placers, up to the last two years the demand for it has not been sufficient to encourage its recovery. The recent high price of tungsten has induced Alaska miners to turn their attention to scheelite deposits. In the fall of 1915 a scheelite-bearing vein was discovered in the Fairbanks district and its development began. Later two other scheelite-bearing veins were found in the same district. During the winter some of these scheelite ores were treated in a local mill and the concentrates were shipped out by parcel post. Scheelite mining was continued during the summer and the crude ore was shipped out by steamer. Considerable scheelite was also recovered from some gold placers of Nome and a little was produced in other districts. About 50 tons of scheelite concentrates, valued at over \$50,000, were produced in Alaska during 1916.

MINERAL FUELS.

The production of petroleum from the only oil claim patented in Alaska in the Katalla district continued in 1916. The operating company was reorganized and more extensive exploitation undertaken. About 8,000 tons of coal was mined in Alaska during 1916 from half a dozen small mines. The largest producer was the Bluff Point mine, on Cook Inlet, where a lignite bed was exploited for the local market. The mining of coal in the lower end of the Matanuska field for the use of the Alaskan Engineering Commission was also a significant event. This part of the field is already made accessible by the Government railroad now under construction. The construction of a private railroad from the Bering River into the Bering River coal field was also begun and a little coal was mined at the southwest end of the Bering River field. Tenders for lease of coal lands in both the Bering River and Matanuska coal fields, under the new law, have been received by the Interior Department. Another important event was the completion, by the Geological Survey, of a detailed examination of the more accessible part of the Nenana coal field, lying about 60 miles south of Fairbanks. All these facts indicate that systematic exploitation of the Alaska coal fields will soon be undertaken.

REVIEW BY DISTRICTS.**SOUTHEASTERN ALASKA.**

Twelve gold lode mines, 7 copper mines, and 2 placer mines were operated in southeastern Alaska during 1916, the value of the gold product being \$5,960,000. Copper mining was confined to the Ketchikan district, where over 3,800,000 pounds, valued at \$1,000,000, was

produced. The principal copper producers were the Rush & Brown, Jumbo, It, Mamie, and Mount Andrew. The only other productive mining in the Ketchikan district was the operation of two small lode gold mines and the continuation of marble quarrying on about the same scale as in previous years. All the four mines of the Treadwell group, in the Juneau district, were operated on a normal basis until August 1, 1916. At that time the 200-stamp mill and half of the stamps of the 300-stamp mill were shut down to avoid further drawing of ore from beneath settling ground in the Treadwell, Mexican, and "700" mines. As noted elsewhere, these three mines were flooded in April, 1917. The other Treadwell mine was operated as in the past. The Alaska-Gastineau mine was operated on a 6,000-ton daily capacity. Owing to the additional waste from hanging walls of stopes on the higher levels, the average tenor of the gold milled fell below the average estimate. This caused misgivings on the part of some as to the ultimate success of the outcome. However, the difficulties in selective stoping are being gradually overcome and the tenor of the ore milled showed a gradual improvement during the summer. Moreover, economies were effected so that the operating costs were reduced.

Mine development continued on the Alaska-Juneau in a large way and much progress was made in the construction of the mill, with a daily capacity of 8,000 tons. This mill began operations in May, 1917. On the Alaska-Ebner properties developments were continued. The chief activities north of Juneau were the Eagle River, Jualin, and Kensington mines. Some ore was milled at Jualin, but the other mines were not productive in 1916, nor are they in 1917. A little beach mining was done on Lituya Bay and some investigations were made as to the feasibility of installing machinery. In the Yakataga district placer mining continued on about the same scale as in the past.

COPPER RIVER BASIN.

As in 1915, the principal copper mines of the Copper River Basin are the Jumbo and Kennecott Bonanza, which made enormous shipments throughout the year. Productive mining was also continued at the adjacent Mother Lode mine. Much development work was done on other copper properties in the Kotsina-Chitina copper belt, but there were no other producing mines. Hydraulic placer mining continued on a large scale in the Nizina placer district. The placer gold output of the Chistochina district, also in the Copper River Basin, was larger than that of the previous year.

PRINCE WILLIAM SOUND.

The value of the total mineral production of Prince William Sound was about \$3,000,000 in 1916, compared with \$1,340,000 in 1915. This represents the value of the production of eight copper mines and eight small gold mines. The Beatson Bonanza, Ellamar, and Midas mines were the largest copper producers, and the Granite and the Ramsay-Rutherford the largest gold producers.

KENAI PENINSULA AND SUSITNA REGIONS.

The rebuilding of the old Alaska Northern Railroad, now in Government ownership, leading inland from Seward, stimulated mining development in the Kenai Peninsula. The production from placer mining did not increase, however, and there were no lode mining operations except some small development work. On the other hand, in the Susitna Basin, which is also served by the Government railroad, there was much advance in mining. About 60 miles of railroad were operated in 1916 from the town of Anchorage. Its immediate tributary territory includes the Matanuska coal field and the Willow Creek lode district. In the Willow Creek district four lode mines were operated in 1916, compared with three in 1915. A dredge was installed in the Yentna placer district, and hydraulic operations were continued in the Valdez Creek district. The value of the total mineral output of the Susitna Basin in 1916 was \$400,000.

SOUTHWESTERN ALASKA.

Some developments were continued on copper deposits of the Iliamna region, but as yet there are no producing mines in this field. A small cyaniding plant was installed and operated to handle the old tailings of the Apollo mine on Unga Island. A large body of low-grade auriferous quartz is said to have been found on the south end of Unga Island, about three miles from the Apollo mine. Some auriferous gravels were found in 1916 on the east side of the Alaska Peninsula between Cold and Katmai bays. It appears that the placers were found on only one creek and the output was only a few hundred dollars. The discovery, as far as known, is of importance only in marking a new locality where auriferous mineralization has taken place. Beach placer mining was continued on Kodiak and Popof Islands.

YUKON BASIN.

The Alaska camps of the Yukon Basin produced about \$7,100,000 worth of gold in 1916, about the same as in 1915. An estimate of the output of the principal camps is as follows: Iditarod, \$2,000,000; Fairbanks, \$1,800,000; Ruby, \$800,000; Hot Springs, \$750,000; Tolovana, \$500,000; Marshall, \$400,000; Koyukuk, \$300,000; Circle, \$250,000. In addition to placer gold the Fairbanks district produced lode gold, antimony, and tungsten to the value of \$100,000. About 115 placer mines were operated in the Fairbanks district during 1916 and several small auriferous lode mines made some production. Antimony ore was mined from three or four properties and scheelite from three. The general attitude of the Fairbanks operators is to await the completion of the Government railroad before undertaking any large developments.

Probably the most important feature of the year of the Yukon Basin was the comparatively large gold output of the Tolovana and Marshall districts. The Tolovana district is about 50 miles northeast of Fairbanks. It was discovered in 1914 and developed in a small way in 1915, but made remarkable progress in 1916. The principal mining is done on the deep channel of Livengood Creek, which has

been traced for about two miles. About 20 mines were operated in the district during the summer of 1916. The Marshall district is on the Yukon northward from its delta. Gold was found in this district in 1913, but until 1916 the production was very small. In 1916 some rich placers were developed on Willow Creek, on which seven plants, employing about 200 men, were operated. Some excitement was occasioned during the year by the discovery of placer gold in the Tolstoi Creek Basin of the Innoko district. The latest reports indicate that the only workable placers thus far found in this district are on Boob Creek and that the production in 1916 amounted to only a few thousand dollars.

The principal mining in the Iditarod district is that of a few large operators. In 1916 only 15 plants were in operation. A new dredge was installed on Black Creek, making three dredges in the Iditarod district. The most important event in the Ruby district was the installation of a new dredge on Greenstone Creek. As in the past, most of the gold from the Hot Springs district is taken from a comparatively few rich placer mines. The same is true of the mining operations in the Koyukuk district.

KUSKOKWIM BASIN.

The most productive mining during 1916 in the Kuskokwim Basin was done in the Aniak district. Good returns are said to have been obtained from the placers of Canyon and Windy Creeks, and a dredge was shipped for installation on Candle Creek in the Tacotna district, but owing to the discouraging difficulties of transportation only a part of it arrived before the close of navigation last fall.

SEWARD PENINSULA.

The value of the gold output of Seward Peninsula in 1916 was about \$2,900,000, which is the same as that of 1915. In addition to this, stream tin, tungsten, and antimony ore were produced to the value of \$100,000.

Twenty-nine gold dredges were operated on the peninsula in 1916, seven in the Nome district, four in the Solomon River district, nine in the Council district, four in the Port Clarence district, three in the Fairhaven district, and two in the Kougarok district. In addition, two tin dredges were worked in the York district. About 65 deep placer mines and 30 open-cut plants were operated on the peninsula during 1916. One of the notable events of the year was the development of the placers on Dime Creek in the Koyuk district in the southeastern part of the peninsula. The output of the district for the year was valued at about \$100,000. These placers carry considerable platinum. The only other place on the peninsula where platinum has been reported is in the placers of Bear Creek in the Fairhaven district.

Besides the tin, tungsten, and antimony mining on the peninsula already described, there was considerable prospecting of copper and gold lodes. Some graphite was also mined and shipped from the Port Clarence district.

GENERAL DEVELOPMENT ALONG THE LINE OF THE GOVERNMENT RAILROAD.

Work on the Government railroad is reported to be progressing satisfactorily. The Alaska Northern Railroad, which has been purchased and made a part of the Government project, and which runs from Seward to Kern Creek, a distance of 71 miles, is being rehabilitated. The road has been completed from Anchorage southward for 20 miles, and northward to Montana Creek, with a branch to Chickaloon, the heart of the Matanuska coal field, a total of 153 miles. The work is also being pushed southward from Nenana toward the Nenana coal field, about 10 miles of rail having been laid here. Grading and clearing is being done on other portions, namely, north of Montana Creek and toward Broad Pass and north of Nenana toward Fairbanks.

The Tanana Valley Railroad, a narrow-gauge road leading from Fairbanks to Chatanika, a distance of 39 miles, is now being operated by the Government under lease, and it is planned to purchase this road and operate it as a part of the Government project.

At Seward the Government has erected an excellent wharf, and many improvements have been made along the water front. A large fishing industry has been located here. The Navy Department is now installing a large wireless plant within a short distance of the town.

The town of Anchorage is prosperous and many improvements are under way. It now has a population of from 5,000 to 6,000. The Alaskan Engineering Commission has added somewhat to its facilities at this point.

North of the Matanuska River is what is known as the Matanuska Valley. Much clearing has been done here, and many prosperous little farms are under cultivation. It is believed that considerable development will be seen in this region in the near future.

A small town site has been laid out at Wasilla, a point about 9 miles north of Matanuska Junction, in the center of a large farming section. This is the nearest point to the Willow Creek mines.

Matanuska, a small town, has been laid out at the junction of the main line of the railroad, with a branch leading to the Matanuska coal field. Its population now numbers several hundred people. The Government has started an agricultural experiment station within a short distance of Matanuska Junction, and it is expected that this will be a large aid to the farmers.

The town of Nenana is situated adjacent to the crossing of the Tanana River by the railroad line and shows signs of prosperity. The Alaskan Engineering Commission has built an excellent wharf, various warehouses, etc.; an electric light system has been installed, and water and sewer systems are being constructed. At both Anchorage and Nenana the commission maintains excellent hospitals. Here its employees are treated by the Government. At Seward arrangements have been made with the general hospital, where adequate service is given. Owing to the absence of other hospital facilities at Anchorage and Nenana, outside cases have been treated at the Government hospital at reasonable rates.

In the vicinity of Fairbanks there is considerable agricultural development. There are many farms under cultivation, and the products raised are of the most excellent quality. The placer mining work in this district at present is at low ebb, owing to the great scarcity of

fuel and exceedingly high price of supplies and materials. When the railroad is connected with the Nenana coal fields it is believed that cheap coal can be provided for the working of these mines, the Tanana Valley Railroad being used as a valuable feeder of the Government railroad in this respect.

RAILROAD MATTERS ELSEWHERE.

The Katalla Anthracite Railroad Co. is the name of a corporation which last year began the construction of a railroad from a point on Controller Bay to the Bering River coal fields, the purpose of the railroad being the transportation of coal for commercial purposes. It is expected that the road will be completed this fall and that coal will be shipped to various Alaska points. The railroad will be about 20 miles long. A dock and coal bunkers will be constructed at a point on Controller Bay which, it is claimed, is well protected from storms and where vessels can lie safely while discharging or receiving cargo.

The Copper River & Northwestern Railroad, from Cordova to Kennecott; the White Pass & Yukon, Skagway to White Pass, and the Tanana Valley Railroad, Fairbanks to Chatanika, were the only other railroads operated in the Territory during the year. The latter road was acquired by the Federal Government as a feeder for the Government railroad, during the past summer, at a cost of \$300,000.

The Yakutat & Southern Railroad, which still claims to be a private railroad and which, therefore, has escaped paying taxes of all kinds, was operated part of the year. This railroad is incorporated under the laws of the State of Washington and has been in operation for years. For a long time public business was refused on the ground that the road was a private concern, although chartered and with a right of way over the public domain. It is about 9 miles in length. If this railroad is a common carrier, as seems probable, it should be compelled to pay taxes the same as other railroads operated within the Territory; and if it is a mere private concern its status should be so defined. This matter has been brought to the attention of officials of the Department of Justice, but it does not appear that any action concerning it has been taken.

THE ALASKA FUND.

The revenues derived by the Federal Government from business and trade licenses outside of incorporated towns and which are passed to the credit of the Treasurer of the United States and credited by him to the Alaska Fund under the act of Congress approved January 27, 1905, amounted to \$259,370.44 for the fiscal year 1917, as compared with \$249,432.39 for the fiscal year 1916, an increase for the year of \$9,938.05. The sums collected during the fiscal year 1917 in each of the four judicial divisions were as follows: First judicial division, \$88,852.11, as compared with \$120,735.52 the previous year; second judicial division, \$13,892.96, as compared with \$12,695.50 in 1916; third judicial division, \$116,185.88, as compared

with \$72,493.05, the previous year; fourth judicial division, \$40,439.29, as compared with \$43,507.82 in 1916. The net amount of cash received from the third judicial division in 1917 was, however, \$106,606.68; the balance (\$9,579.20) represents canceled fish hatchery certificates, rebates credited to certain salmon canneries for the release of salmon fry, in lieu of cash payment of taxes on their outputs. In the first judicial division, canceled fish hatchery certificates amounting to \$5,876 were received in addition to the amount of cash payments made to the Treasurer of the United States.

The total amount of revenues received on account of taxes levied by the Federal Government within incorporated towns, in the form of business and trade licenses, and which are paid directly by the clerks of the district courts to the treasurers of the various municipalities, were: First judicial division, \$91,122.86; second judicial division, \$11,756.15; third judicial division, \$35,981.44; fourth judicial division, \$34,126.37; a total of \$172,986.82, as compared with \$166,475.98 the previous year.

Besides the revenues derived by the Federal Government from business and trade licenses of all kinds in incorporated towns and outside of incorporated communities, taxes are levied on fisheries products as follows: Canned salmon, 4 cents per case; pickled salmon, 10 cents per barrel; salt salmon, in bulk, 5 cents per hundred pounds; fish oil, 10 cents per barrel, and fertilizer, 20 cents per ton. Section 260, Compiled Laws of Alaska, 1913, provides that the catch and pack of salmon in Alaska by the owners of private salmon hatcheries operated in Alaska shall be exempt from all license fees and taxation of every nature at the rate of 10 cases of salmon to every thousand red or king salmon fry liberated; that is, a rebate of 40 cents is allowed on every thousand red or king salmon fry released.

Sixty-five per cent of the moneys paid into the Alaska fund is appropriated for the construction and repair of roads and trails outside of incorporated towns; 25 per cent for the maintenance of schools outside of incorporated towns, and 10 per cent for the relief of indigents, under the act of Congress approved March 3, 1913. The Territorial revenue act, passed by the Alaska legislature, session of 1917, imposes the following schedule of taxation upon fisheries: Salmon canneries, $4\frac{1}{2}$ cents per case on kings and reds or sockeye; $2\frac{1}{2}$ cents per case on medium reds; 2 cents per case on all others; salteries, $2\frac{1}{2}$ cents per 100 pounds on all fish salted or mild cured, except herring; fish traps, fixed or floating, \$100 per annum; fish oil works, using herring in whole or in part in the manufacture of fish oil, \$2 per barrel; fertilizer and fish-meal plants manufacturing fertilizer or fish meal in whole or in part from herring, \$2 per ton.

THE ALASKA INSANE.

The insane of Alaska have always been cared for outside of the Territory under the contract system. The present contractor is the Sanitarium Co., Portland, Oreg. The increase in the number of insane persons in Alaska has been gradual and in keeping with the growth of the population of the Territory, and, therefore, there has been a gradual expansion of the sanitarium plant in order to furnish the necessary accommodations for the patients confined therein. During the past four years substantial improvements have

been made to the sanitarium and a new dormitory with an auditorium and other additions were completed the past year. The new building is of modern design, is thoroughly sanitary, and is equipped with the latest appliances in hydro-therapy treatment for patients. Additional bathing facilities have also been provided and there is evidence of painstaking care of the insane in all the departments of the institution. The improvements thus added have had a beneficial effect upon the inmates and as a result complaints are now infrequent. It is but just, however, to the management of the sanitarium to say that most of the complaints heretofore made upon investigation proved to be unfounded and were such as might be expected in an institution that is not State-owned and conducted; but it is a well-known fact that even Government institutions of this kind seldom or never escape criticism of various kinds from those confined in them.

There is a fair-sized farm in connection with the sanitarium and such patients as are able to work and are willing to do so find healthy employment and needed exercise. Restraint of patients, except violent cases, is unknown, and the treatment accorded these unfortunates is entirely humane. The sanitarium is visited regularly by inspectors of the Department of the Interior, the last visit of the latter having been made in July of the present year. The conditions noted were satisfactory in all respects. The great increase in the cost of supplies of all kinds has affected, of course, the sanitarium, and it is doubtful if the price received by the Sanitarium Co. for the care of the insane is at all commensurate with the cost of maintenance, and it would be but fair if a readjustment of the contract could be effected. The contract entered into by the Department of the Interior is for a period of five years and has three years yet to run.

The number of Alaska insane under treatment on June 30, 1917, was 211, of whom 184 are males and 27 females, as compared with 165 males and 23 females on the same date last year. There were 18 patients received during the quarter; 7 were discharged as cured, and 6 died.

DETENTION HOSPITALS.

Hospitals for the temporary care of the insane of Alaska are located at Fairbanks and Nome. These hospitals were constructed in 1913, but for various reasons, chief of which is a lack of funds for their proper maintenance, it is doubtful if they are serving the purposes for which they were intended. In these several annual reports it has been urged that a sufficient appropriation be made by Congress for the maintenance of these hospitals, and, if such an appropriation can not be secured, it is recommended that they be permanently closed.

ALASKA PIONEERS' HOME.

The first Alaska legislature, which was convened in 1913, enacted a law for the establishment of a home for aged prospectors and those who have spent their years in Alaska and become incapacitated for physical labor and dependent. The home is located at Sitka, the ancient capital of Alaska. It is generously supported by the Terri-

tory, and it has amply demonstrated the wisdom and humanity of those who were responsible for its foundation. The buildings formerly occupied by the United States Marine Corps are used for the purposes of the home, having been transferred to the Territory for that purpose in 1912. Many improvements and additions have been made to the buildings, including a hospital for the care of the sick, of whom there is always a considerable number, and cottages for the isolation of tubercular patients. A hospital staff and a corps of trained nurses are regularly employed. The management and control of the home are vested in a board of trustees, consisting of the governor of the Territory and two citizens appointed by him, and the board appoints the superintendent in charge and the hospital physician.

During the quarter ended June 30, 1917, 5 persons were admitted to the home; 6 inmates were discharged during the same period, and 5 died. Four persons were admitted between June 30 and September 1, two were discharged, and one died. The total number of inmates in the home on September 1, 1917, was 70.

ALASKA COAST SURVEYS.

The work of the Coast and Geodetic Survey in charting the navigable waters along the coast and inside passages of Alaska was continued during the year with the available equipment and personnel. During 1916 three vessels were employed in surveying areas in the sheltered waters of southeastern Alaska and Prince William Sound, and two wire drag parties located numerous uncharted pinnacle rocks along the inside passages of Clarence and Sumner Straits.

In addition to the vessels and parties mentioned above, two triangulation parties began work in the spring of 1917 to extend throughout southeast Alaska the system of primary triangulation, which will eventually be extended through intervening parts of Canada and will connect the United States system of triangulation with the system which will extend throughout Alaska. This work is essential to safeguard the water-borne commerce of Alaska and should be prosecuted vigorously until the principal trade routes and inland coast waters are made secure for vessels navigating them. At present there are very large areas of unsurveyed waters where work is urgently needed. In fact, the progress of these surveys is scarcely keeping pace with the development of the Territory. Alaska's commerce is increasing each year and, therefore, the necessity for complete surveys becomes more imperative. In addition to the work along the coast of Alaska, the Survey has planned to extend primary triangulation and precise leveling along the principal rivers and lines of communication in interior Alaska for the control of public and private surveys and maps. This will be started as soon as funds are made available for it by Congress. Having this control for surveys and maps ahead of detailed operations will prove of great economic advantage to the Territory.

AIDS TO NAVIGATION.

The Department of Commerce, through the Lighthouse Service, continued its work of providing additional aids and safeguards to navigation along the Alaska coast during the fiscal year. Eleven

lights were added to the existing number, as compared with 35 during the previous year. One fog-signal station was established and 1 improved, 6 gas buoys and 17 other buoys were constructed and placed in position, and 7 beacons established during the year. The following are the locations of the new lights: Cape Edward entrance, Kukkan Bay; Cape St. Elias, Kayak Island; Hanin Rocks, Kodiak Harbor; Lyman Point, Clarence Strait; Point Craven, Peril Strait; Spike Rock, Wrangell Strait; Susitna River entrance, Cook Inlet; Turn Point, Hunter Bay; Turn Point Shoal, Wrangell Strait; Warm Spring Bay, Chatham Strait; Village Point, Nicholas Passage. A fog signal was established at Cape St. Elias, Kayak Island, and the fog signal at Scotch Cap, Unimak Pass, was changed from an air whistle to an air diaphone.

Gas buoys were established at the following points: Channel Rock, Sitka Sound; North Rock Shoal, Orca Inlet; Orca Inlet, Prince William Sound; Potter Rock, Tongass Narrows; Poundstone Rock, Favorite Channel; Reef Island Reef, Prince William Sound; and other buoys were placed as follows: Beck Island, Clarence Strait; Blind Point, Wrangell Strait; Button Island Shoal, Zimovia Strait; Cob Island Reef, Karheen Passage; Harvester Island Spit, Uyak Anchorage; Karheen Passage, Karheen Reef; Mystic Rock, Revillagigedo Channel; McHenry Ledge, Clarence Strait; Mid-Channel Rock, Zimovia Strait; Middle Ground, north end Wrangell Strait; Point Swift Rock, Karheen Passage; Popof Reef, Popof Strait; Snow Passage, Clarence Strait; Topeka Rock, Wrangell Strait; Trap Rock, Zimovia Strait. Beacons were established at Double Rock, Zimovia Strait; Entrance Point, Valdez Narrows; Mountain Point, Wrangell Strait; North Island Rock, Orca Inlet; Niblack Point, Clarence Strait; Village Rock, Zimovia Strait; West Clump, Tongass Narrows.

ROADS AND TRAILS.

The importance of roads and trails, especially in the development of a new country, can not be overestimated. These avenues of transportation and commerce are just as necessary as railroads. That this is realized by most of the States is attested by the fact that the era of building good roads, which began several years ago, having been accelerated by the perfection and general use of the automobile, shows no sign of abatement. Alaska, it will be conceded, is a difficult country in which to construct roads. Costs of construction are heavy, and, as a consequence, the Territory has but an inconsequential mileage of really good roads. Nor can these be expected until greatly increased appropriations are available and a thorough system of road building inaugurated and thereafter properly maintained. The cost of maintaining such roads and trails as have been constructed leaves but a small amount of money for new work each year or the development of road building on a comprehensive scale, such as is required by the settlement of the Territory and its constantly increasing needs and requirements. The Government railroad will need roads and trails as feeders, and the farming districts now being opened up will require more and more road mileage with each succeeding year. Good roads in the farming States of the West may be pointed to as examples of how the life of the farmer has been made

much less onerous. Good roads enable him to reach markets that once were impossible of access because of the lack of these every-day means of communication and traffic between the farm and the town. Therefore, if farming is to be developed in Alaska, good roads connecting the farming districts with the railroads and selling points for farm produce are indispensable to the success of a farming population; and the statement applies equally to the success of the prospector and miner in their search for mines and in their development.

THE ALASKA ROAD COMMISSION.

According to data furnished this office for this report by the Alaska Road Commission, the expenditures by that board during the fiscal year ended June 30, 1917, amounted to \$576,747.90, of which \$76,716.15 was received from the Alaska fund and \$500,000 was from a special appropriation made by Congress, and \$31.75 from collections reverting to that fund. The larger part of these expenditures were for surfacing and other improvements on roads already constructed to bring them up to standard.

The total mileage, on June 30, 1916, was: Wagon roads, 980; sled roads, 623; and trails, 2,291. The principal extensions of wagon roads were on the Ruby-Long, the Knik-Willow Creek, and the Marshall roads, with minor extensions elsewhere. A winter trail was put through from Nenana to the Kantishna country during the winter of 1916-17, a distance of 75 miles. The usual trails throughout the Territory were flagged at a cost of \$4,225.

Besides numerous small bridges constructed during the year, larger bridges were completed in the early part of the year as follows: The Fairbanks bridge, at a total cost of \$53,001.27; the Tazlina bridge, at a cost of \$17,624.80, and the Snake River bridge, completed at a cost of \$16,949.93. In addition to the expense incurred for bridges, a number of ferries have been put in operation for the convenience of the traveling public. Among these are the Sinrock, Bonanza, and Safety ferries in the Nome district; the Birch Creek ferry near Circle; and the McCarthy and Salcha ferries on the Valdez-Fairbanks overload road.

During the last session of the Territorial legislature an act was passed, approved May 3, 1917, to provide for the construction, maintenance, and protection of roads, bridges, ferries, etc., to provide funds, and to perfect a Territorial road organization. Under this act the Territory is divided into divisions coinciding with the four judicial divisions, each division having a divisional commission in charge of roads. The act also provides that the apportionment of funds shall be so arranged that it will not conflict with those made by the United States Board of Road Commissioners for Alaska. To cover two years' expenditures, \$400,000 was appropriated, each division to receive \$100,000.

In conformity with the above act the Alaska Road Commission conferred with all divisional boards, who notified the Alaska Board of Road Commissioners as far as possible of the work proposed by them.

It is to be noted that work planned by the divisional boards relieves by very little the pressure on the Federal board for the maintenance of existing roads and trails or bridges or future necessary

roads, for which the demand is constant and pressing. During the past year many appeals and petitions from citizens and memorials from the legislature were received for new roads, trails, etc., but it is manifestly impossible to accomplish everything with the amount of money available, although most of the projects asked for have merit.

There are at present four different organizations working on roads, with practically no connection with each other, except casual arrangements made by themselves. It would seem proper that the duties of each and the territory of each should be well defined.

Experience for the past 10 years has shown that while dirt roads are of great value in the development of the country and aid the prospector and freighter, the excessive rain during the summer months soon makes them almost impassable, and roads have to be surfaced and resurfaced as far as practicable. During the past and present summer especially it has rained in various sections of the Territory for three and four weeks at a time, making road work difficult and expensive. Under such conditions the necessity for graveling all roads needs no explanation. Originally it was intended to construct only earth roads, and this was done, but, owing to the increased traffic following immediately upon such construction and also the use of automobiles and trucks for freight and passengers, it has now become imperative to surface all roads not already surfaced. The demand for wagon roads in connection with the Government railroad continues as in the past, but it is manifestly impossible to construct all these roads as feeders unless a special appropriation is made therefor.

Owing to the increased cost of supplies, the Alaska Road Commission was compelled, in common with the business concerns in the Territory, to grant an increase in wages on July 1, 1917, to all laborers, cooks, and others of similar salaries. Even with such an increase, it has been difficult to obtain sufficient labor, partly due to the scarcity of men and partly to the exposure and hard conditions to which the men are subjected in the open during the excessive rains.

On June 11, 1917, the main office of the Alaska Road Commission was removed from Valdez, Alaska, where it had been for several years, to Juneau, Alaska, this change having been made necessary by changes in the official duties of the officers composing the board, due to the present war.

AGRICULTURE IN ALASKA.

Alaska is steadily forging to the front as an agricultural country of promise. Its agricultural growth has not been marked by speed, yet every year now witnesses an extension of farming operations. Farming in an exceedingly limited way was prosecuted in Alaska many years ago, even during the Russian occupation, but it was confined mostly to raising vegetables and other garden truck. No attempt was made to raise grains, except on a small scale; yet the Russians had a flour mill at Sitka, where wheat, brought from California, was converted into flour.

The establishment of agricultural experiment stations by the Government in 1898 has done much to encourage soil cultivation and investigations in Alaska. The first farming on anything like an extensive scale is to be credited to the Tanana Valley, where in

the past few years the agricultural spirit has been manifest and a considerable area of land has been brought under cultivation. Potatoes may be said to be the principal crop, but many varieties of hardy vegetables are successfully grown, besides wheat, oats, barley, and other grain crops. Formerly all the potatoes required for consumption in the Fairbanks district were imported from the States, but for the past few years the local product has been practically equal to all demands. The Tanana Valley potato grows to a fair size and is equal to the best imported variety, and there is no reason, therefore, why the entire interior country, including northwestern Alaska, should not be supplied with the Tanana Valley product. There are some really excellent cultivated farms in the Tanana Valley section—farms which show the careful attention of the farmer who knows how to farm; and there, too, are others of which this can not be said. There is no royal road to agriculture in Alaska and the soil needs to be more than “tickled” with the hoe before it laughs with the harvest. Nevertheless, labor, intelligently directed, will bring its reward. A promising farming region that has leaped into prominence during the past few years is what is known, broadly speaking, as the Matanuska Valley, contiguous to the town of Anchorage. Here several hundred farms have been located and considerable progress is being made in their development. This farming section has an advantage in that it has the town of Anchorage as a market for farm produce. The Alaskan Engineering Commission also encourages farming by buying potatoes and other locally raised produce. Speaking by, and largely and judging by the experience of the past there seems to be no reason why Alaska should not be able to produce all the vegetables required by its people. It may, too, be possible that in time the Territory will produce a substantial amount of wheat and other grains in the Matanuska country, the Tanana and Kuskokwim Valleys, and in other regions now remote but soon to be linked up with other parts of the Territory by the Government railroad.

Cattle raising is also attracting attention and it is expected that the next few years will witness decided progress in this industry in the Territory. It may be set down as a fact that Alaska should produce the greater portion of the domestic meats which are now imported.

Matanuska Valley potatoes sell at \$60 a ton, this price having been fixed by the farmers of that section for the present year. There is also a warm-storage warehouse where potatoes and other vegetables are stored until sold, and this cooperation on the part of the farmers is an evidence of that progress and thrift which are necessary to secure an adequate reward for individual and collective effort. Such men are literally making two blades of grass grow where only one grew before.

AGRICULTURAL FAIRS.

Agricultural, horticultural, and floricultural fairs have been held annually in Alaska for a number of years, notably at Skagway and Fairbanks, and the exhibits at all times have been creditable. These fairs have been an excellent means of sowing the possibilities of Alaska along these lines. This year Anchorage, the youngest town of

Alaska, has been added to the list of places showing agricultural and other exhibits. The fair was a complete success. The exhibits displayed were a surprise to many who saw them and it was fully demonstrated, according to reports that reached this office, that many of the products now being imported into the Territory can be raised locally. A campaign has been begun, having for its object the education of the people to the use of home-grown products of the soil and to induce merchants, restaurant proprietors and others to purchase only products that can be raised in various parts of the Territory. The greatest drawback, it is alleged, is the problem of distribution, because of the excessive freight rates charged by the transportation companies. Given reasonable rates the land products could compete with those from the States which have hitherto supplied most of the towns along the Alaskan coast. Transportation concerns should encourage farming in the Territory, and it would seem to be a short-sighted policy, and one that will not pay in the long run, to charge freight rates that are practically prohibitive and which tend to discourage the cultivation of the soil. On the contrary every effort should be made to encourage and develop farming in the Territory. For some years past the Haines section on Lynn Canal has shipped rutabagas and other farm products to Seattle as well as to Alaska coast towns, and this year also witnessed considerable shipments of Haines strawberries, which have established a fine reputation for flavor and quality.

AGRICULTURAL EXPERIMENT STATIONS.

The work at the Government experiment stations has progressed favorably during the past year. It is to be noted, however, that the weather conditions have been most unfavorable, especially in the interior. These unfavorable conditions, however, have not been peculiar to Alaska. They have extended all over the United States. The spring was very late and cold; spring seeding and spring work of all kinds was, therefore, retarded. Later, after the grains were seeded, there was a protracted drought. During the month of June there was scarcely any rain at either Rampart or Fairbanks experiment stations, but, on the contrary, with the coming of July, heavy rains were prevalent and it rained nearly every day in that month at the stations. The wet weather abated in August, but continued cloudy and showery, so that grain crops continued to grow when they should begin maturing, with the result that the harvest of all kinds of grain has been much later than usual. The early maturing grains were fully three weeks later in maturing this year than in 1915 and fully two weeks later than in 1916.

Grain growing and the hybridization of grain, with a view to developing new varieties, has become the most important work at the Rampart station. This year there were upward of 200 plats, large and small, devoted to the tests of various varieties of grain. It is deemed of the utmost importance that varieties should be developed which will mature in interior Alaska in even the most unfavorable season—that is to say, earliness is one of the prime factors in a variety of grain that shall succeed there. The station has developed very many varieties of barley and oats which have now

become established and which proved to be earlier than any varieties that could be obtained from the outside, with the sole exception of some grains obtained from Siberia. These varieties have been developed by crossing the earliest sorts that could be found with the later and larger varieties, with the result that in barleys there is now in the neighborhood of 20 new and early sorts which are different in all the leading characteristics from the parent stock and which can be depended on to mature in Alaska every year. Many of these crosses prove to be inferior and are rejected in the final test, but many others are superior in size of head, yielding quality, and earliness to any varieties of barley known to the agronomist in charge.

In the same manner a dozen hybrid varieties of oats have been developed at the Rampart station which promise to be early enough to mature every year, and it is hoped may be sufficiently good yielders to compare with good varieties of oats anywhere.

Some wheat crosses have also been produced which promise to be better than any that have been obtained from the outside, but these are not yet sufficiently tested out to speak with absolute assurance as to their merits.

It is inexpedient to go into details in this brief statement, but suffice it to say that the summer of 1917 was the most unfavorable known in the experience of the stations, but nevertheless upward of 100 varieties of grains were thoroughly ripened before the end of August.

There are several varieties of spring wheat, the seed of which was originally obtained from the experiment station at Tulun, Okhotsk, Siberia, and they have matured satisfactorily every year, even the present. The stalks are short and the heads are small and the grains are small; consequently the yield is comparatively light. The object is to increase the size and yielding quality of the plant by the creation of new varieties which shall retain the earliness of these Siberian wheats and satisfactory progress is being made along this line. This grain-breeding work is done chiefly at the Rampart station for the reason that it is farther north than any of the other stations and anything that will succeed there should succeed anywhere in interior Alaska south of the Arctic Circle.

LEGUMES.

At the Rampart station work is also being done with the hardy alfalfas and there are now about 10 acres in this important legume. There is much to be done in the way of selecting mother plants of the best type from which to propagate, and much time and work is devoted to this line of investigation. The season has been so cold and backward that but little alfalfa seed has matured this year.

Vetch, known to science as *vicia cracca*, gives more and more promise year by year to be a very valuable leguminous plant for interior Alaska. It is perfectly hardy without protection and is a perennial plant. Plants which were started in 1909 are still alive and more vigorous than ever. It has the very valuable property of spreading by root stalks so that even if it is sown in rows three feet apart the rows will eventually grow together and form a solid thicket of forage. The chief difficulty in increasing the area rapidly is the fact that it produces but little seed.

HARDY STRAWBERRIES.

"It is a matter of pleasure and satisfaction," says Dr. C. C. Georgeson, agronomist in charge of the Alaska agricultural experiment stations, "to be able to announce that certain varieties of the hybrid strawberries which were developed at the Sitka station by crossing the wild strawberry of the coast region with certain cultivated varieties prove to be entirely hardy in the interior without protection of any kind. Strawberry beds at the Rampart station, which have passed through three winters, were in excellent condition this summer and yielded fruit of superior quality quite abundantly. This one fact that the station has produced strawberry plants which are entirely hardy in the interior speaks volumes for the work. It will be difficult to estimate the economic value of these interior Alaska strawberries to the generations that are to come."

FAIRBANKS STATION.

The Fairbanks station has been operated as a demonstration farm this past season. There were about 100 acres in grain at this station, most of which matured, though some of the late oats have been cut for hay. If the station remains under the control of the Department of Agriculture it is planned to increase the area under culture very considerably and as rapidly as possible. As an indication of the growth of the work it will be of interest to mention that a tractor has been purchased to be used in plowing, harrowing, seeding, and in general farm work. A larger thrashing machine than the one now in use at this station was also purchased. There are certain contingencies, however, which may compel this station to curtail work or possibly to discontinue it altogether. A law passed by the Sixty-third Congress gave four sections as a building site for an agricultural college in Alaska, and the site to be occupied was described in the law so that it takes in the entire reservation which had been made for the experiment station. The last Territorial legislature appropriated \$60,000 to be expended in the erection of buildings for this college, and the governor of the Territory has appointed a board of trustees consisting of eight members, five of whom live at Fairbanks. While an agricultural college will doubtless in time to come be of great value to the Territory, and undoubtedly the leading idea in its location was to aid in the work of educating the young people who may attend that institution by giving them abundant opportunity to absorb the work being done at the experiment station, and for that reason it might be desirable to have the college site adjoin that of the experiment station, still it is not apparent that it was necessary to absorb the station in order that the pupils might benefit by its work. Indeed, it may have the opposite result, for it is not likely that the Department of Agriculture will consent to work under the control of a Territorial board of directors for that institution. The better plan would be to pass an amendment to the act which appropriated the station lands to the college so that at least a portion of these lands can be segregated from the college lands and devoted exclusively to station use.

KODIAK STATION.

The Kodiak station has been devoted to stock breeding exclusively, as heretofore. The native pastures, which suffered severely by the Katmai volcanic ash deposits in 1912, have practically been reestablished, and the herd, the sheep, and the station are doing well. One of the aims of the work at this station is to develop a hardy family cow. It was thought that such a cow could be developed from pure-bred Galloways, which constitute the bulk of the herd, and undoubtedly it could, but it would take too long to do it; and, by way of making a short cut, a small herd of pure-bred Holstein cattle has been introduced, which will be used in making reciprocal crosses with the Galloway, and the offsprings selected with a view to establishing a new breed that shall have the hardiness of the Galloway and, at least in some measure, the milking qualities of the Holstein.

That portion of the herd which was found to be infected with tuberculosis has been isolated from the sound animals and they will be bred with a view to ascertaining if it is practicable to obtain sound calves from parents infected with tuberculosis—that is to say, the object is to either prove or disprove that it is necessary to kill all animals in order to eradicate the disease. The available data along similar lines would indicate that it is possible to rear healthy calves from diseased dams by sterilizing the milk before it is fed to the calves. Some building operations have been going on at this station and it will be necessary to build at least a sanitary barn in the near future.

MATANUSKA STATION.

A station was started in the Matanuska Valley the past spring. A reservation of 880 acres has been made for this station near the little town of Matanuska and the work has been placed in the immediate charge of Mr. F. E. Rader, who was formerly connected with the work of the Alaska stations. As yet there is not much to report. The pioneer steps of erecting the necessary buildings and clearing sufficient land to begin culture are under way. The Matanuska country has been settled for only about two years, and enough is not known about it as yet to speak with certainty as to its agricultural capabilities. The soil is rich, vegetation is luxuriant, but it remains to be determined whether the rainfall is not too heavy to make it possible to mature grain successfully.

SITKA STATION.

At the Sitka station the work has progressed as heretofore. This station is devoted entirely to horticulture in all its phases. There is a small test orchard; there are plantations of bush fruits—currants, gooseberries, raspberries, and the work of developing hybrid strawberries is still continued. The season has been very unfavorable for this kind of work; it has been entirely too wet for the best results.

ALASKA NATIONAL GUARD.

The act of Congress approved June 3, 1916, entitled "An act for making further and more effectual provisions for national defense and for other purposes," includes the organization of the Alaska

Militia, and steps are now being taken to perfect the organization of a National Guard for Alaska. The Secretary of War has authorized the enlistment of two companies at present, one to be stationed at Juneau, and the other at Fairbanks. Although a large number of Alaskans have already enlisted in the United States Army and in different branches of the Navy, it is believed that little difficulty will be experienced in securing the full quota of men at both Juneau and Fairbanks; and besides other companies could be organized in other sections of the Territory with comparative ease, as soon as additional units are authorized by the War Department.

MAIL SERVICE.

There are always complaints covering the inadequacy of the mail service, especially in the more remote sections of Alaska, where transportation facilities are limited, although effort is undoubtedly made to meet the requirements of all communities. A complaint that is made, with justice as its basis, is directed at the vast accumulations of mail other than that of the first class, destined for interior points. The mail carried over the postal routes from points on the Alaska coast, under the winter schedules, is limited in weight, and hence the accumulation of all kinds of mail except first class. When navigation opens in the spring all this delayed mail is forwarded to its destinations. There are tons of it and by the time it reaches the places of delivery, it is anywhere from three to nine months old. Therefore, it is practically useless and probably much of it never reaches those persons for whom it is intended. This condition can be obviated by increasing the quantities to be carried under the winter contracts, which should be done, or by eliminating all other mail except first class from the contracts. Manifestly the latter course would work an injustice, except on the theory advanced above, namely, that the mail is useless to the persons to whom it is addressed, when received the following summer, and, therefore, the Government could effect a substantial saving by excluding it from the mails. The people of the interior who receive their mail over the trails from the coast during the winter season are surely entitled to other than strictly first-class or letter mail. Newspapers, magazines and other periodicals which constitute the bulk of winter mail accumulations at coastal points are just as necessary to the happiness and contentment of the people living in the interior as they are to those who are so situated that they can receive all kinds of mail during all seasons of the year. Therefore, it is submitted that contracts for the transportation of mail to interior points should include the carrying of increased amounts during the winter season, thus lessening the winter accumulations and the cost of spring transportation of mail of ancient vintage, and adding to the welfare and happiness of people who are necessarily isolated for from six to eight months of the year.

The question of more adequate mail service to interior Alaska points will probably be solved in part with the completion of the Government railroad, and transportation costs materially lessened; but until the railroad is in operation the amount of mail carried over the various winter routes should be largely increased.

The Post Office Department at times has not exercised a great deal of wisdom in awarding some of its contracts in the Territory. In order to make a showing of saving a few dollars, prompt and efficient service has been discounted, and the result is that some communities are not receiving the mail service which their growing needs seem to demand. In new countries which are just entering upon an era of development of their natural resources, the Government could well afford the expenditure of a few extra dollars by requiring that suitable vessels on water routes should be given preference in the awarding of mail contracts.

There will no doubt be great possibilities of aerial navigation after the war is over, and it is an after-war probability that aircraft will be largely used for the delivery of mail and for other peaceful purposes. Wherever distances are great, as in Alaska, the chances are that aircraft will be utilized for the conveyance of mails as soon as the world has settled down to a peaceful basis.

AIRPLANE LUMBER.

The great expansion of the airplane industry, brought about by the present war, has created a big demand for lumber suitable for the production of aircraft, and, as a consequence, the merits of Sitka spruce for this purpose have been closely investigated. These investigations have demonstrated that Sitka spruce possesses the essential qualities required in the construction of airplanes. The wood is light, clear of knots, and possesses great tensile strength and durability and other desirable qualities. A number of large contracts have been let, it is stated, for lumber manufactured from Sitka spruce for the building of airplanes.

This lumber has also been found to be peculiarly adapted for the manufacture of pianos, and it is probable that there will be a large increase in the manufacture of lumber products in the immediate future. Heretofore the limited quantities of Alaska lumber that have been exported were used largely in the manufacture of boxes for the shipment of canned salmon. The great bulk of Sitka spruce is found in southeastern Alaska.

PROHIBITION IN ALASKA.

At the general election of November 7, 1916, a prohibition referendum submitted to the people carried by a large majority, and Congress, in February last, passed a law prohibiting the importation, manufacture, and sale of intoxicating liquors for sale or gift, and fixing penalties for its violation. While perhaps it is not expected that the passage of a prohibitory law will at once entirely banish intoxicating liquors from the Territory, it may be taken for granted that if the law be generally enforced within a short time traffic in intoxicants will be practically unknown. The enforcement of the law, which is what is known as a "bone-dry" law, will be made much less difficult by the fact that the nearest source of supply will be California, British Columbia (Alaska's nearest neighbor on the south) and the States of Washington and Oregon all having stringent prohibitory laws.

UNITED STATES COMMISSIONERS.

The judges of the district courts should be as far removed as possible from politics and political influences, if the courts are to retain the respect and confidence of the people. A step in this direction would be the taking of appointments of United States commissioners out of the hands of the judges and vesting the appointing power elsewhere. The democratic way would be the election of United States commissioners, who are also *ex officio* justices of the peace, coroners, and probate judges, directly by the people of the various recording precincts.

LABOR CONDITIONS.

Alaska is suffering from a shortage of labor in nearly every section, and in some it has become pronounced during the past spring and summer. This is especially true of southeastern Alaska, where the great low-grade lode mines are severely handicapped in their operation of mines and mills by reason of the lack of sufficient labor to conduct these enterprises. As a result, gold production has been curtailed to a considerable extent and this condition will prevail until a sufficient supply of labor can be procured. Many of the miners employed throughout the Territory have gone to the copper-mining States of the West, attracted thither by the better wages paid there by the operators of copper mines, the price of copper having largely advanced owing to war conditions. It was expected that the close of the salmon-fishery season would relieve the mine labor situation to some extent, but this does not seem to have been the case.

A strike of miners employed by the Kennecott Copper Corporation in the Copper River Basin occurred in June of this year, owing to the demand of the men for an increase in the wage scale. The strike, however, was not of long duration and many of the men returned to work, partially through the efforts of a representative of the Department of Labor who visited Kennecott for the purpose of adjusting the strike difficulties. There was also a labor strike on the part of some of the men employed in the construction of the Government railroad at Nenana, but it was of short duration, the differences having been satisfactorily and speedily adjusted.

A general eight-hour law, applicable to all wage and salary earners in the Territory, will become effective on January 1, 1918. This law was passed by the Alaska legislature, session of 1917, in response to a referendum submitted to the people at the general election of 1916, the referendum having been adopted by an overwhelming majority. The governor of the Territory, however, is "given the power to suspend or modify restrictions contained in the law when such shall be requested by the Council of National Defense or the Secretary of the Interior, and such modification or suspension, when made, shall be continued for a specified period and not longer than the duration of the present war, or during the continuance of any future war with a foreign power."

COMMISSION OF CRIME.

In the annual report of this office for the fiscal year 1916 reference was made to the commission of capital crimes, especially in the remote regions of the Territory, and it was stated that in many cases

the perpetrators have never been apprehended, due in part at least to the lack of funds to investigate such cases, the United States marshals' offices having no moneys at their command which can be used in ferreting out crime and bringing the offenders to the bar of justice. Under the system which prevails, should the United States marshal's office hear of a crime being committed at any distance from the courthouse, an investigation can not be made until someone has filed an information and a warrant has been issued. Only then can expenses which must be incurred be authorized. Because of this, many murders committed in the past few years are still unsolved mysteries. With these conditions in mind the Territorial legislature, at the session of 1917, enacted a law "creating a fund in the Territorial treasury to be used for the purpose of detecting crime;" thus assuming a responsibility that should be borne by the Federal Government. The fund thus created is under the sole supervision and control of the governor of the Territory.

MINE EXPERIMENT STATION.

A mine experiment station, one of the eight authorized by act of Congress in 1915, was established at Fairbanks, in interior Alaska, the present year. It is expected that the station will be of great benefit and assistance to the mining industry of interior Alaska, but important results can not be expected until the fuel question of that section has been solved, and this solution depends on the completion of the Government railroad to the Nenana coal fields. It is noted elsewhere in this report that mining conditions, both placer and lode, are at low ebb, generally speaking, in most of the mining sections of interior Alaska, and little revival may be expected until such time as cheaper fuel is obtainable and transportation conditions improve.

A number of the largest gold lode mines in the United States are located in southeastern Alaska, besides a number of small copper mines, and if another mine experiment station were located at Juneau, the center of the greatest mining industry of that section, undoubtedly a great impetus would be given to the prosperity and future development of mines on a productive basis.

ALASKA WATER POWER.

A tremendous amount of horsepower is running to waste in Alaska streams. Billions of feet of timber, a considerable portion of which is also going to waste yearly, await the utilization of the now useless water power so as to turn this now useless timber into wood pulp as well as other product. All the possible electric energy that can be developed is situated on lands belonging to the United States and under the jurisdiction of the Secretary of the Interior. The agitation of some years ago in favor of conservation of natural resources resulted in restrictions so severe that Alaska's resources, such as coal, oil, and water power, were not only preserved, but reserved, and existing laws are such that the utilization of these sites for hydro-electric plants is virtually impossible. Capital is scared away immediately upon learning that these water powers can only be developed by obtaining a permit, revocable at the pleasure of a Federal depart-

ment or bureau. The plain result is that capital looks askance when the subject of developing these water powers for industrial purposes is broached. A sufficient indication of the reluctance of capital to invest under the present conditions of uncertainty is shown by the fact that while 25.2 per cent of the maximum horsepower on lands not requiring Federal permits has been developed in the United States only 3.9 per cent has been developed on lands where permits are required. There are in Alaska, especially in the southeastern section, some of the finest water power sites on the entire Pacific coast which only await a reasonable law and equally reasonable regulations thereunder to be developed and then in turn make use of other nearby and available natural resources for the benefit of the public at large. Determined efforts have been made to induce Congress to pass a law which would offer opportunities for capital to develop the water powers located on public lands under Federal control. Although one bill passed the Senate and another passed the House the legislation necessary is still to be enacted. The latest bill introduced was by Senator Walsh, of Montana, and is known as Senate Bill No. 2812, "To encourage and promote the mining of coal, phosphate, oil, gas, potassium, and sodium on the public domain." This bill seems to be fair and liberal in all its provisions and the hope is expressed that it will speedily be enacted into law. Its provisions are such as should encourage development and safeguard capital, and at the same time adequately protect the public interest.

The most important of Alaska water power projects at this time, and one which has been developed to a considerable extent, is known as the Speel River project, located at Snettisham, about 40 miles south of Juneau. It is located in the midst of a well-timbered section and is surrounded by other valuable natural resources easily accessible. It is proposed to manufacture nitrogen from the air as well as wood pulp and electrochemical products of various kinds.

THE TERRITORIAL LEGISLATURE.

The third Alaska legislature convened in March last. The sessions are held biennially, in the odd-numbered years. Seventy-five laws and amendments to existing laws were enacted and a large number of resolutions and memorials addressed to Congress were adopted. Among the important and constructive legislation enacted was the following: A direct primary law; a law providing for the election of national committeemen of the different political parties and of delegates to national conventions; a law providing for the establishment of the first institution of higher learning in the Territory, the Alaska Agricultural College and School of Mines, to be located at Fairbanks. A law was also enacted designating the Agricultural College and School of Mines as the beneficiary of grants of land authorized by act of Congress approved March 4, 1915, and of moneys for the benefit of State and Territorial colleges of agricultural and mechanic arts, authorized by acts of Congress approved August 30, 1890, and March 4, 1907. Among other laws passed were an act appropriating \$100,000 for the defense of the Territory, to be expended under the direction of the governor; an act making an

appropriation for the detection of crime; an act providing for military defense and for other purposes; an act amending the Territorial banking laws; an act granting money allowances to mothers of dependent children; an act amending the vital statistics law and providing for the issue of marriage licenses before marriage can be solemnized; an act prohibiting the sale or gift of cigarettes, cigars, or tobacco in any form to minors under 18 years; an act to establish night schools to fit adult, uneducated aliens for citizenship; an act for the incorporation of cooperative associations; an act providing for fish hatcheries and for the protection and care of natural spawning grounds, and the creation of a board of fish commissioners, and making an appropriation of \$80,000 for the purposes of the act; an act providing for the leasing of school lands; an act providing for the rescue of lost persons; an act providing for a Territorial board of road commissioners and appropriating \$400,000 for road and trail construction; an act authorizing the incorporation of school districts outside of incorporated towns, and providing for a tax levy for the support of such schools; an act to provide for the maintenance of public schools and high schools in incorporated towns, cities and incorporated school districts, 75 per cent of such cost of maintenance to be paid from the Territorial treasury; an act to establish a uniform school system in the Territory and creating a Territorial board of education and the office of commissioner of education (native schools are not included in the above act); an act for the preservation of public peace and safety in time of war and prevention of sedition and the exciting of ill feeling against the Government and for the prevention of the exhibition of disrespect or contempt for the Government of the United States, or for the flag, or President, or for certain officers thereof.

An old-age pension law was passed by the first legislature in 1913, and also a law for providing for the care of dependent children and establishing juvenile courts. A law was also enacted establishing a home for aged pioneers, as well as a law relating to vital statistics, health, and sanitation; laws creating medical, dental, and pharmacy boards, and a compulsory school law; banking laws (the first in the Territory) were also enacted in 1913. The second legislature in 1915 passed an employers' liability and workmen's compensation law, a law defining the status of Indians and providing for citizenship, an eight-hour law for all labor employed in all mines of the Territory, and a comprehensive mine-inspection law.

An enlargement of the powers enjoyed by the Territorial legislature, it is submitted, is necessary, and there is no doubt that it would be used judiciously and with profit to the people who are here laying the foundations for a future great commonwealth.

TOURIST TRAVEL.

The tourist travel to Alaska during the present year was somewhat disappointing as to volume. As a matter of fact, that war has tended to discourage it, although it might have been expected that European travel having been practically abandoned by the pleasure seeker Alaska would have profited by the situation thus created by reason of war conditions, but this self-same condition affected the Territory, according to transportation men. A story

that received more or less credence was to the effect that enemy submarines were in the waters of the Pacific early last spring, and this put a damper on Alaska tourist travel from which it did not recover, although the story proved to be without foundation in fact. However, with the end of the war, a great increase in the volume of travel to Alaska may be reasonably expected. Here there are natural wonders a plenty, and for the grandeur of its scenery this Territory is unsurpassed.

Improved transportation facilities will be needed in order to induce the traveler to see Alaska as it should be seen—not hurriedly, but in a leisurely way that will permit the sight-seer to appreciate the marvelous wonders and beauties of nature's handiwork. Alaska's mountains, its glaciers, its vastness, its volcanic peaks, its numerous bays, channels, fiords, islands covered with the greenest of verdure, snow-capped mountain tops, slumbering volcanoes, its rivers and streams—all are such as to command the rapt interest of the traveler; and now to its other attractions, recent investigations have demonstrated that the volcano of Mount Katmai, in western Alaska, is the greatest in the world, being 9 miles in circumference and some 3,500 feet deep, with a real river of mud some 17 miles long in the neighborhood of the volcano. In June, 1912, this mountain "blew its head off," and its scoriæ and ashes were blown great distances, both along the coast and into the interior country.

HEALTH CONDITIONS.

Alaska is a healthful country, as is attested by its vital statistics, now regularly published. Those people who know not this Territory may express sympathy for those who live here, but it is a sympathy that is wasted, so far as health conditions are concerned. Epidemical diseases, except occasionally among the native population, are rare, and such as occur are due to passenger travel from the ports of the Pacific coast States. Malaria is unknown, and so are many of the diseases to which flesh is heir in the centers of population elsewhere. It may also be said that the health conditions among the natives of Alaska are steadily improving, due to the hygienic and sanitary campaigns that are waged by the teachers of the United States Bureau of Education and the work of the missionaries and of the accredited health commissioners of the Territory. Tubercular and kindred diseases are not so prevalent as formerly, and the natives are fast learning that sound bodies and healthy minds are just as essential to their health and prosperity as they are to the white population.

RELIEF OF DESTITUTION.

Relief of such persons as may become incapacitated from labor, through sickness or accident, is provided by both the Federal and Territorial governments, the former aid being extended by the operation of an act of Congress which provides that 10 per cent of the Alaska fund, or so much thereof as may be necessary, shall be appropriated for their relief by the judges of the different judicial divisions, who are required to file quarterly reports of the disbursements made by them with the Secretary of the Treasury and the governor

of Alaska. The Territorial relief is provided by an appropriation made from the Territorial treasury and is expended under the direction of the governor. The biennial appropriation is \$15,000. As stated elsewhere, the Territory also supports from its funds a home for aged prospectors and others who have spent their years in Alaska and have become incapacitated from labor through old age, sickness, or accident. The expenditure on this account during the last fiscal year was \$4,207.45. A pension system for all persons over the age of 65 years who are unable to earn a living and who are without other means of support was established in 1915.

TERRITORIAL OFFICERS.

The office of attorney general of the Territory was created by an act of the legislature in 1915, the office being elective and for a term of four years. The attorney general receives a salary of \$5,000, together with necessary office and traveling expenses. The other Territorial officers are the treasurer of the Territory, the Territorial inspector of mines, and the commissioner of education. The treasurer receives a salary of \$4,000, and as secretary of the Territorial banking board he receives an additional sum of \$1,000 annually; the commissioner of education receives a salary of \$3,600 a year, and the inspector of mines receives a salary of \$3,000 a year, with necessary expenses. The last-named official makes an extended inspection of the placer and lode mines of the interior during the open season, and during the winter his work is largely confined to the coastal sections, with his headquarters at Juneau. Other elective officers in the Territory are the road commissioners, elected under a Territorial act for the terms of two years, there being one in each of the four judicial divisions. These officials receive as salaries 5 per cent of the disbursements made by them for road, bridge, and trail construction.

THE ALASKA GAME LAWS.

The game of Alaska is under the dual control of the Department of Agriculture and the office of the governor of Alaska, the latter being also charged with its execution. The Department of Commerce exercises control over the fish, the marine, and terrestrial fur-bearing animals. While the authority to enforce the game laws is invested in the governor, who appoints game wardens and guides, the Secretary of Agriculture provides the regulations thereunder. The protection afforded the game animals in the Territory is achieving more or less satisfactory results, but with the settlement of the Territory it is probable that game will steadily decrease unless a more drastic law is enacted, together with a largely increased number of wardens. Alaska is the last great game country of the Nation, and if the best conservation measures be adopted in the immediate future an abundance of game may be preserved for an indefinite time. The sum annually appropriated by Congress for the protection of game is \$20,000, and it should be increased to \$50,000 if the best results are to be obtained. A peculiarity of the game law and one to which reference has been made in previous reports of this office, is seen in the fact that while the black, or common, garden variety of bear is classified as a fur-bearing animal and may be killed at any

time, his blood brother, the brown bear, a vicious, predatory animal, killing and maiming human beings every year and destroying domestic as well as wild animal life, is decorated with an iron cross, so to speak, and classified as a game animal and rigidly protected. Such protection should be removed, for if it were the brown bear would still flourish and there would be no danger of the species becoming extinct. The Territorial legislature, session of 1917, enacted a law and made an appropriation for stocking certain islands of Prince William Sound with Sitka deer. Through the enterprise of the Chamber of Commerce of Cordova a start had already been made in this direction and a number of deer were placed on Hinchinbrook Island, where they were hitherto unknown, and now about 100 more will be placed on other contiguous islands. These deer will be protected for a term of years and will in time furnish a source of food supply in that region.

PUBLIC BUILDINGS.

Juneau, the capital of the Territory, has no Federal building, although the need of such becomes more pressing every year, with the development of the Territory and the growth of the business of the Government in the several offices there located. In 1910 Congress authorized the erection of a public building at Juneau to cost, with the site, \$200,000. An excellent site was purchased at a cost to the Government of \$22,500, but nothing has been done toward the construction of a building, due to the fact that the sum available for this purpose was not considered sufficient for the construction of a building suitable to the needs of the Territory. An additional appropriation of \$300,000 was asked for and it was recommended by the Committee on Public Buildings and Grounds, but the appropriation failed of passage. The additional sum is required so as to provide suitable chambers for the Territorial legislature and the Alaska Historical Library and Museum. Congress in 1912 passed the Alaska organic act, which provided for the election of a legislature of 24 members, and the first session of that body was held in 1913. Under present conditions the legislature meets wherever it can find quarters, and those which are available are a mere makeshift and unsuitable in nearly every respect for its purposes. Congress makes an appropriation of \$2,000 for rent of legislative quarters, which in late years has not been found sufficient, and the legislature has been compelled to supply the deficit from Territorial funds. A public building should be erected at Juneau as early as possible as a matter of governmental economy. Besides the governor's office, which is housed in a ramshackle building, once used as a native mission school, on the site now owned by the Government, and which also serves as a home for the valuable books, archives, etc., of the Alaska Historical Library and Museum, there are rented quarters for the post office, United States Land Office, the Surveyor General's office, the customs office, the Board of Steamboat Inspectors, the field office of the Department of the Interior, the Alaska Road Commission, and the United States Weather Bureau.

TERRITORIAL BANKS.

Alaska has 16 Territorial banks and 3 national banks, an increase during the year of 2 Territorial banking institutions. New banks

were established at Cordova and Fairbanks during the year, and there was one failure, a bank at Fairbanks having been closed in August of this year by the Territorial Banking Board. The bank was a small institution and, while the depositors will suffer some loss, there are no heavy individual losers.

The Territorial Banking Board, composed of the governor, the Territorial treasurer and the secretary of the Territory, was created in 1913 by act of the Territorial legislature, and through its efforts a great improvement in banking methods has been effected. The banks are inspected at least once in each year and are required to report their condition to the banking board at least four times a year upon call, or oftener, in the discretion of the board. Territorial banks are located at Ketchikan, Wrangell, Petersburg, Douglas, Juneau, Skagway, Cordova (2), Seward, Anchorage (2), Nome (2), Iditarod, and Fairbanks. National banks are located at Juneau, Seward, and Fairbanks. The deposits in the various Territorial banks on August 7, 1917, aggregated \$6,544,489.62, as compared with \$4,985,006 on August 5, 1916. The combined capital of these banks is \$700,000, as compared with \$540,000 in 1916; and the total surplus and net undivided profits amount to \$231,728.16.

PUBLIC-LAND SURVEY.

The survey of public lands was continued during the year, 19 townships, whole and fractional, of the Seward meridian, and 3 townships, whole and fractional, of the Fairbanks meridian, having been surveyed.

By act of Congress entitled "An act to amend the United States homestead law in its application to Alaska, and for other purposes," approved July 8, 1916, it is provided that every person who is qualified under existing law to make homestead entry of the public lands of the United States situated in Alaska, whether surveyed or unsurveyed, with the intention of claiming the same under the homestead laws, shall be entitled to enter 160 acres or a less quantity of unappropriated land in Alaska; and a former homestead entry in any other State or Territory shall not be a bar to a homestead entry in Alaska.

Lands for homestead purposes are being located from time to time, but until more and better transportation facilities are afforded it need not be expected that there will be any great rush to acquire homesteads in Alaska. The homesteader needs encouragement along many lines, and those who are located along the line of the Government railroad or contiguous to it should be shown every consideration possible. The development of the lands, agricultural and mineral, that are or will be made accessible by reason of railroad construction should be a prime matter of consideration, inasmuch as this development will mean ever-increasing tonnage for the railroad.

I have to renew the recommendation contained in my annual reports for 1915 and 1916 that homesteads should be surveyed without cost to the entrymen.

COMMERCE.

The rapid development of Alaska along commercial lines during the fiscal year is well illustrated by the greatly increased growth of

commerce, which reached the high-water mark in the history of the Territory, exceeding in value that of 1916 by the substantial sum of \$23,925,527.

Statistics show that the volume of merchandise shipments, including precious metals and copper, between Alaska and the United States and between the Territory and foreign countries for the fiscal year 1917 amounted to \$121,265,947, as compared with \$97,340,420 for the fiscal year 1916. Shipments of domestic merchandise from the United States to Alaska showed an increase of \$11,925,307 over the previous year, while shipments of domestic merchandise from Alaska to the United States increased by almost the same amount, being \$11,169,728. Shipments of domestic gold and silver to the United States decreased by \$862,244 during the year, while shipments of foreign gold and silver increased \$1,011,039. The value of fish shipments of all kinds showed an increase of \$4,204,231 over the previous year, and the shipments of copper ore increased \$6,609,902 during the year. Tungsten ore valued at \$54,870 was shipped from Alaska to the United States during the year. This is the first shipment of record of this kind of ore, and it may be remarked here that there is fair promise of a considerably larger production of this kind of ore during the present calendar year.

The principal items of increase in imports to Alaska from the United States embrace lumber, hardware, and machinery, spirituous and malt liquors, and provisions. Shipments of hardware and machinery showed an increase of \$4,054,691; provision shipments were \$2,052,375 greater than in the previous year, while liquor shipments increased \$143,261 during the year. Next to copper ore the principal item of exports from Alaska was fish of all kinds to the value of \$23,833,662, an increase of \$4,204,231 for the year. The total value of copper ore shipped from the Territory during the year was \$33,098,190, as compared with \$26,488,288 during 1916. The total domestic gold and silver exports during the year were \$16,093,353, as compared with \$16,955,597 in the previous year. A marked increase in the value of shipments of furs, gypsum, and stone, including marble, is to be noted for the year. The shipments of tin decreased \$25,324.

Domestic merchandise shipped from the United States to Alaska, 1912-1917.

	Fiscal year ended June 30—					
	1912	1913	1914	1915	1916	1917
Coal ¹	\$110,462	\$212,523	\$295,123	\$255,810	\$244,136	\$290,237
Lumber.....	573,223	738,717	642,611	712,199	1,060,311	1,343,336
Hardware and machinery.....	5,788,616	4,296,305	5,069,453	4,849,353	6,128,826	10,183,517
Provisions.....	5,164,914	5,316,089	5,645,715	5,314,917	6,301,043	8,353,419
Liquors.....	602,418	721,593	645,890	555,144	659,210	802,471
All others.....	6,599,637	8,894,320	9,630,668	9,105,186	12,118,785	17,454,639
Total.....	18,809,270	20,179,547	21,939,460	20,792,609	26,502,311	38,427,613

¹Besides the domestic coal above mentioned, foreign coal was imported to the value of \$256,562 in 1912, \$279,788 in 1913, \$108,366 in 1914, \$141,480 in 1915, \$156,269 in 1916, and \$280,687 in 1917.

Value of merchandise and precious metals shipped from Alaska to the United States, 1913-1917.

	Fiscal year ended June 30—				
	1913	1914	1915	1916	1917
Fish, salmon, canned and other.....	\$17,065,677	\$14,219,216	\$18,375,053	\$18,856,625	\$22,229,724
Fish, all other.....	928,598	982,222	949,796	772,806	1,403,938
Furs.....	751,345	701,511	679,850	572,969	711,550
Gypsum.....	117,250	100,727	106,985	50,500	62,000
Stone, including marble.....	82,952	127,220	116,930	58,675	110,101
Oils, animal.....	285,224	210,627	298,427	270,503	297,696
Ore, copper.....	3,579,474	3,876,411	5,182,004	26,488,288	33,098,190
Tin.....	83,802	72,734	71,400	79,471	54,147
Tungsten.....					54,570
All other.....	1,130,234	1,189,396	1,356,015	1,715,640	1,912,989
Total.....	24,014,556	21,480,066	27,039,470	48,965,477	60,135,206
Domestic gold and silver:					
Gold.....	14,576,015	12,201,673	15,348,666	16,195,635	15,409,529
Silver.....	131,012	148,446	263,606	756,962	688,624
Total.....	14,707,027	12,440,118	15,612,272	16,952,597	16,098,153
Foreign gold and silver:					
Gold.....	4,289,322	3,495,084	4,423,622	2,696,303	3,676,385
Silver.....	924		11,779		23,286
Total.....	4,290,246	3,495,084	4,423,622	2,697,582	3,708,621
Grand total.....	43,011,829	37,415,218	47,075,364	68,618,656	79,937,179

Total commerce of Alaska for the fiscal year ended June 30, 1917.

Shipments of—

Domestic merchandise from the United States to Alaska.....	\$38,427,618
Foreign merchandise from the United States to Alaska.....	564,431
Domestic merchandise from Alaska to the United States.....	60,135,205
Foreign merchandise from Alaska to the United States.....	638,654
Domestic gold and silver from the United States to Alaska.....	1,698,065
Domestic gold and silver from Alaska to the United States.....	16,093,353
Foreign gold and silver from Alaska to the United States.....	3,708,621

Total..... 121,265,947

ASSESSED VALUATION AND TAXES.

There are 16 incorporated towns in the Territory. The town of Juneau has a bonded indebtedness of \$75,000, under a special act of Congress, incurred in the construction of a new school building which was completed early in September, 1917. Four of the towns did not make an assessment of taxable property or levy a tax for the calendar year 1916. In these cases the municipal expenses are defrayed exclusively from funds collected from the local liquor and other trade and occupational licenses, levied by the Federal Government and paid to the clerks of the district courts and by them turned over to the treasurers of the towns, as provided by law. Reports received from the 12 incorporated towns which caused an assessment of property to be made in 1916 show a total assessed valuation of \$14,479,049, and the tax rates of these 12 towns ranged from 1 to 2 per cent, the average being 1.7 per cent. There is no assessment of real or personal property in Alaska outside of incorporated towns, except in the case of incorporated school districts outside of incorporated towns which, under a Territorial law, are given the power to levy taxes for the support of schools. The Territory raises its revenues largely from business and trade licenses and a tax upon the output of salmon canneries. The figures relating to taxable

property and taxes within incorporated towns are presented in the following table:

Assessed valuation and rate of taxation, 1916.

Towns.	Assessed valuation.	Rate of taxation.
		Per cent.
Chena.....	(1)	(1)
Cordova.....	9830, 920	1.0
Douglas.....	532, 253	2.0
Eagle.....	24, 012	1.5
Fairbanks.....	3, 066, 287	1.5
Haines.....	(1)	(1)
Iditarod.....	(1)	(1)
Juneau.....	3, 547, 400	2.0
Ketchikan.....	1, 072, 060	2.0
Nome.....	1, 440, 748	2.0
Petersburg.....	332, 580	1.0
Seward.....	1, 781, 475	1.4
Skagway.....	634, 786	2.0
Tanana.....	(1)	(1)
Valdez.....	834, 254	2.0
Wrangell.....	202, 334	2.0

¹ No valuation made and no tax levied.

PUBLIC SCHOOLS.

The interest of the people of Alaska in their public schools is a matter worthy of more than mere passing mention. The school system that we now have has been a matter of slow but steady development and the support and encouragement given it has had both a stimulating and sustaining effect. Public schools twenty years ago were practically unknown in this Territory, but so soon as a community had the requisite number of children of school age requests were made for the organization of a school district and the maintenance of a school therein. As a matter of fact, Alaska had no school law for white children until 1905, when what is known in Alaska as the "Nelson school law" (the work of Senator Nelson, of Minnesota) was enacted by Congress. Senator Nelson's part in establishing a system of schools for white children and those of mixed blood leading a civilized life was a result of a personal visit to the Territory, and the "Nelson school law" has been the means of providing an education for many hundreds of the children of Alaska.

By an act of Congress approved March 3, 1917, the control of the white public schools of Alaska was transferred to the Territory, and the Territorial legislature, session of 1917, enacted a series of laws relating to schools and amending the Federal law. The number of white children necessary for the organization of a school district and the establishment of a school was reduced from 20 to 10, the Federal law requiring a minimum of 20 white children between the ages of 6 and 20 years. Experience having demonstrated that there were many communities having less than the required number of children, and as it was manifestly unfair to deprive any community of school privileges in which there were 10 children of school age, the Territorial legislature therefore amended the law so as to permit the organization of school districts with the lesser number of pupils. As a result there have been a number of new schools established in different parts of the Territory.

The legislature also passed a law providing for the incorporation of school districts outside of incorporated towns. This law provides

that the district so incorporated shall levy a property tax and assume 25 per cent of the cost of school maintenance, the balance to be paid from Territorial funds. Another Territorial school law provides that 75 per cent of the cost of maintenance of schools in incorporated towns shall be paid from the Territorial treasury, the balance to be assumed by the incorporated town. A substantial amount of the revenues of incorporated towns is now derived from saloon, trade, and occupation licenses, but, as stated elsewhere in this report, a prohibitory liquor law will go into effect in the Territory on January 1, 1918, and it therefore became necessary for the Territory to assume a part of the cost of school maintenance, thus recouping these towns in part for the loss of revenue thus sustained. This burden has been cheerfully assumed by the Territory, and the necessary appropriation for the maintenance of these schools was made from Territorial funds. The legislature also appropriated \$70,000 annually for the maintenance of white schools outside of incorporated towns, to be expended for the support of such schools as may be organized under the new Territorial law and also to meet any deficit that may arise in the school section of the Alaska fund. Twenty-five per cent of the Alaska fund is set apart under Federal law for the maintenance of schools outside of incorporated towns.

Another act passed by the Territorial legislature, session of 1917, provides for the establishment of citizenship night schools and makes an appropriation for their maintenance. This is a step forward in the Americanization of the foreign-speaking population of Alaska. It has been found that the alien-language population is receptive to Americanization, and that its condition is largely due to the neglect of Americans who have shown little interest in their welfare. The idea seems to have grown up that America is simply a hunting ground for Europe—a fair field for the rest of the world to hunt the dollar in. The immigrants have been easily led by false leaders who were principally interested in using them to their own advantage. Revolutionary and visionary sociological doctrines have found ready acceptance among them. The American school is doing a good work with the children of these immigrants, but it is not influencing the elders; and it is hoped that these citizenship night schools, the first of the kind actually established by a special law in the United States, so far as known, will be the means of influencing the elders, and that through them they will be enabled to appreciate democratic institutions and the privileges of American citizenship before they have assumed the duties which such citizenship imposes. The citizenship night-school law is the work of Representative Chester K. Snow, of Ruby.

Chapter 64, Session Laws of Alaska, also provides for the establishment of a uniform school system in Alaska and creates a Territorial board of education and the office of commissioner of education. Schools for natives do not come within the purview of the act. The Territorial board of education consists of the governor of the Territory, who is ex-officio president, and the four senior senators of the Territorial legislature, one from each electoral division of the Territory. At a meeting of the board on May 5, Lester D. Henderson, of Juneau, was elected commissioner of education, and assumed the duties of that office on May 10.

NUMBER OF SCHOOLS.

During the year 1916-17 schools were maintained in 40 districts outside of incorporated towns. Nine new districts were organized during the year, making a total of 49 school districts at the beginning of the school year 1917-18. Of the 9 new districts organized, 3 were established under the act of January 27, 1905 (commonly known as the "Nelson school law"), and 6 were established under chapter 22, Session Laws of Alaska, 1917, which is an amendment to the act of 1905 and which reduces the number of white children necessary for the establishment of a district from 20 to 10 and increases from \$1,000 to \$1,800 the amount which may be allotted for the construction and equipment of a schoolhouse. Of the new districts established 2 were in the first judicial division, 4 in the second, and 3 in the third. Under chapter 5, Session Laws of Alaska, 1915, providing for the incorporation of school districts outside of incorporated towns, one district (Anchorage) has thus far been organized. The 40 schools maintained during the year 1916-17 employed 50 teachers and had an enrollment of 1,364, as compared with 1,470 the previous year. The average number of pupils per school was 34.1, as compared with 39.73 for the 1915-16 school year; and the average cost of maintenance per school was \$1,993.50, as compared with \$2,114.63 for the previous year; the average cost per pupil was \$58.46, as compared with \$53.22 the previous year.

Statistics of white schools outside of incorporated towns for the school year 1916-17.

Location.	Number of teachers.	Pupils of school age.	Cost of maintenance.	Term (months)
Afognak.....	3	120	\$3,380.00	9
Blackburn.....	1	10	1,372.00	9
Candle.....	1	25	2,673.00	9
Charcoal Point.....	1	20	1,588.00	9
Chatanika.....	1	22	1,722.00	9
Chichagof.....	1	18	1,155.00	9
Chitina.....	1	12	1,418.00	9
Council.....	1	18	2,128.00	9
Craig.....	1	20	1,350.00	9
Eagle River.....	1	14	1,460.00	9
Ellamar.....	1	28	1,300.00	9
Fox.....	1	22	1,978.00	9
Garden Island.....	1	27	1,978.00	9
Hadley.....	1	10	1,431.00	9
Hope.....	1	12	1,355.00	9
Kasaan.....	1	20	1,237.00	8
Katalla.....	1	20	1,432.00	9
Kenai.....	3	142	5,827.00	9
Kiana.....	1	22	2,436.00	9
Knik.....	1	20	1,421.00	9
Kodiak.....	4	140	4,895.00	9
Latouche.....	1	25	1,899.00	9
Longwood.....	2	56	2,703.00	9
McCarthy.....	1	14	1,885.00	9
Mendenhall.....	1	6	766.00	6
Nimilichio.....	1	30	1,680.00	9
Nushagak.....	1	30	1,169.00	9
Otter.....	1	10	2,431.00	9
Ouzinkie.....	1	32	1,300.00	9
Perseverance.....	1	13	1,964.00	9
Ruby.....	1	30	2,590.00	9
St. Michael.....	1	28	1,804.00	9
Sanak.....	1	33	1,948.00	9
Soow Bay.....	1	28	1,154.00	9
Seldovia.....	1	40	1,964.00	9
Sitka.....	2	75	2,266.00	9
Teller.....	1	19	1,802.00	9
Thane.....	1	40	1,837.00	9
Treadwell.....	2	63	2,983.00	9
Unga.....	1	50	2,079.00	9
Total.....	50	1,364	79,740.00	.....

SCHOOLS IN INCORPORATED TOWNS.

In the incorporated towns which maintain graded schools excellent work is being done, vocational education being a feature in a number of these schools. Graded schools are maintained in 15 of the 16 incorporated towns of the Territory, the town of Eagle having had a school during the school year 1916-17 for the first time in several years. Reports received from 13 of the 15 incorporated town schools for the school year 1916-17 show a total of 68 teachers employed, a total enrollment of 1,778, including high-school students, and a total daily average attendance of 1,397. The average number of pupils enrolled per school was 120.8, while the average daily attendance per school was 107.4. The average cost of maintenance (including improvements and repairs to school buildings) per school was \$10,510.15; the average cost per pupil enrolled was \$76.84. Ninety-four pupils graduated from grade schools and 15 from the high schools of the 13 schools from which reports were received at the close of the school year 1916-17. Reports from the schools in the towns of Iditarod and Valdez have not yet been received and no data is available as to these schools. High-school courses of from one to four years are provided in the following towns: Douglas, Fairbanks, Juneau, Ketchikan, Nome, and Valdez, four years each; Seward, three years; Cordova, Petersburg, and Skagway, two years; Tanana, one year. No high-school work is provided in the schools of Eagle, Haines, Iditarod, and Wrangell. The following table contains itemized statistics for the 13 schools whose reports are at hand:

Statistics of white schools in incorporated towns for the school year 1916-17.

Location.	Number of teachers.	Total enrollment.	Average daily attendance.	Term (months).	Grade-school graduates.	High-school graduates.	Expenditures.		
							Salaries of teachers.	All other.	Total.
Cordova.....	3	93	60	9	4	.....	\$3,465.00	\$2,319.00	\$5,784.00
Douglas.....	8	259	204	9	16	4	7,645.00	3,667.00	11,302.00
Eagle.....	1	8	7	7	.....	.....	700.00	231.00	931.00
Fairbanks.....	9	223	197	9	7	4	15,075.00	11,358.00	26,433.00
Haines.....	2	43	40	9	3	.....	1,800.00	700.00	2,500.00
Iditarod.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Juneau.....	14	380	297	9	20	5	17,610.00	6,993.00	24,603.00
Ketchikan.....	8	210	163	9	11	2	8,200.00	10,693.00	18,893.00
Nome.....	6	145	106	9	4	.....	8,550.00	3,799.00	12,349.00
Petersburg.....	3	91	64	9	3	.....	2,615.00	801.00	3,416.00
Seward.....	4	103	75	9	8	.....	4,725.00	11,379.00	16,104.00
Skagway.....	6	104	87	10	12	.....	4,850.00	2,249.00	7,099.00
Tanana.....	1	19	17	10	1	.....	1,525.00	1,072.00	2,597.00
Valdez.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wrangell.....	3	100	80	9	5	.....	3,040.00	1,281.00	4,321.00
Total.....	68	1,778	1,397	.....	94	15	80,100.00	56,532.00	136,632.00

LIQUOR TRAFFIC AMONG THE NATIVES.

Four special employees for the suppression of the liquor traffic among the natives of Alaska were engaged in the work during the year. The efforts of these special employees have been marked by a good degree of success, and during the past four years there has been a decrease in the liquor traffic among the native people. The reports of the special employees, which are required each month by the Gov-

ernor's office, show only the bare statistics and results and do not include a great amount of what may be termed preventive work. The natives are learning that intoxicating liquors are their worst enemy and there are many among them who are earnest workers in the temperance cause, and by example and precept, they are aiding in the banishment of this curse of their race and of mankind. The missionaries stationed among the natives have also been largely instrumental in turning the natives from the evils of intoxicating liquors, and in this work they have had the earnest cooperation of the superintendents and teachers of the United States Bureau of Education, who are in charge of the native schools in the Territory.

However, while advancement has been made and is continuing steadily, the evil has been by no means entirely eradicated. There are still too many worthless, alleged white men who pander to the natives' thirst for strong liquors for pecuniary gain or for purposes still worse, and this class is a moral ulcer that is difficult of excision. Courts are sometimes inclined to too much leniency in the cases of confirmed violators of laws which prohibit the sale or gifts of intoxicants to natives. United States marshals, too, in some of the districts, seem to be unable or disinclined, through their deputies, to assist in stamping out this traffic, and especially in the first judicial division numerous complaints to this effect are registered.

With a prohibitory liquor law going into effect January 1, 1918, it may be reasonably expected that there will be a still further decrease in the liquor traffic among the Indians. But it must not be expected that the traffic will have ceased, for no doubt considerable quantities of liquor will still remain in the Territory even after its sale has been absolutely penalized; and also it may be expected that it will be smuggled into the Territory to some extent. Added to this there will, without doubt, be a great increase in the illicit manufacture of liquor which, during the past four years, has practically disappeared except in remote localities where the natives at times distil or brew a very vile intoxicant known as "cold" or "sour-dough" whisky. In other localities it is known under the name of "hootch," and while the process of distilling "hootch" varies somewhat from that of making "sour-dough" whisky, the effects upon the individual are identical, in that frequent indulgence in either soon destroys him physically and mentally.

The charges preferred against the several defendants, as a result of the operations of the special employee and the disposition made of the cases in the first judicial division, were as follows:

Furnishing liquor to natives (prosecutions under the Federal statute).—Eight persons were arrested on this charge, one being acquitted and seven convicted upon trial in the district court. Three of those convicted were sentenced to the penitentiary for terms of 2 years each, one was given a term of 21 months in the penitentiary, two were given 2 months each in jail, and one was given a term of 200 days in jail.

Giving liquor to Indians (prosecution under the Territorial act).—Thirty-nine persons were arrested on this charge, 4 were discharged upon hearing before United States commissioners, and 35 were convicted or plead guilty, 11 were fined in sums ranging from \$120 to \$250, and 24 were given jail sentences ranging from 60 to 200 days.

Soliciting another to procure liquor for natives (prosecution under the Territorial statute).—Five persons were arrested on this charge, one was dismissed and four were found guilty upon trial. Three of those found guilty were sentenced to two months each in jail and the fourth was fined \$150.

Drunk and disorderly (prosecution in municipal courts).—Eight persons were arrested on this charge and all were convicted; two were sentenced to 10 days each in jail; one was sentenced to 15 days in jail, and four were fined in sums ranging from \$15 to \$40. In the second judicial division three persons were arrested during the year for furnishing liquor to natives. One was convicted upon trial in the district court and given a jail sentence of six months, and the other two were awaiting the action of the grand jury at the end of the fiscal year.

The charges preferred and the disposition made of cases in the third judicial division were as follows:

Furnishing liquor to natives (prosecutions under Federal statute).—Four persons were arrested on this charge; one after being held to the grand jury under a cash bond of \$100 left the jurisdiction of the court, thereby forfeiting his bail. The other three were found guilty on trial, two receiving jail sentences of two months each and one a jail sentence of six months.

Larceny of liquors.—Three natives were arrested on this charge; two were found guilty upon trial, one being given a sentence of 100 days in jail and a fine of \$50 and the other sentenced to 75 days in jail. The third defendant was awaiting trial at the end of the fiscal year.

Illegal manufacture of liquors.—One native was arrested on this charge, found guilty, and sentenced to 60 days in jail.

Drunk and disorderly (prosecution before municipal courts).—Two natives were found guilty on this charge, one being fined \$25 and the other \$15. In addition to the cases prosecuted by the special officer in the third judicial division as noted above, he caused members of 16 firms doing business in the town of Anchorage to appear before the grand jury for selling cider containing 5 to 12 per cent alcohol. They were dismissed with a severe reprimand. This officer also seized the schooner *Lucy*, of 309 gross tons, as it was nearing the port of Anchorage, and took possession of a large shipment of mixed liquors, beer, and cider, which was turned over to the custody of the United States marshal. The owner of the schooner had procured the liquors from San Francisco and shipped them without proper markings and manifest, and is being held for trial in the courts of California. It is claimed that these liquors were being smuggled into Anchorage for the use of bootleggers. The special officer also destroyed a large quantity of alcoholic cider found in the possession of a dealer at Anchorage.

The charges preferred against the several defendants and the disposition made of the cases in the fourth judicial division were as follows:

Assault and battery.—Six persons were arrested and convicted on this charge. Two were fined \$500 each and given six months in jail; one was given six months in jail at hard labor, one was given 30 days in jail, one was fined \$200, and one was fined \$25.

Simple assault.—One person was arrested on this charge, but dismissed upon a hearing before the commissioner.

Disorderly conduct.—Seven persons were arrested on this charge, and all were convicted. Five were given fines of \$25 and costs, and two were fined \$5 and costs each.

Disturbing the peace.—Five persons were prosecuted on this charge. One was dismissed upon hearing before a commissioner; four were convicted, one being fined \$50, and two were fined \$25, and the other was fined \$5; costs being added in each case.

Grand larceny.—One person was arrested and convicted on this charge, being sentenced to a term of three years in the penitentiary.

Petit larceny.—Two persons were arrested and convicted on this charge, one receiving a sentence of 60 days and the other a sentence of 90 days in jail.

Furnishing liquor to natives.—Six persons were arrested on this charge, one was discharged upon hearing before the commissioner, two were discharged upon consideration of their cases before the grand jury, one was acquitted upon trial in the district court, and two were convicted. Of the two persons convicted one was given a sentence of 90 days and the other a sentence of 100 days in jail.

Selling liquor without a license.—Two persons were arrested on this charge; one was discharged upon hearing before the commissioner, and the other was found guilty and fined \$100 and sentenced to 60 days in jail.

Trespass.—Three persons were arrested for trespassing upon the mission grounds at Tanana. They were found guilty, two being fined \$50 each and the third fined \$25 and costs.

Vagrancy.—Four persons were arrested and convicted on this charge; one was fined \$200 and costs, and each of the others were fined \$250 and costs.

CABLE AND TELEGRAPH LINES.

There have been frequent interruptions of cable service between Seattle, Wash., and Alaska during the year, due to breaks in the cable. The frequency of such occurrences is no doubt due to the deterioration of the cables which were laid many years ago. The need of new cables is imperative and provision should be made by Congress to supply the need, if anything like a satisfactory service is to be maintained. The demands on the service have increased largely in recent years, and in order to keep pace with the growth of business it is necessary that the cable and land telegraph lines should be kept in a first-class state of efficiency.

The cable-repair ship *Burnside*, which has its home port at Bremerton, Wash., has been more actively engaged in repair work during the past year than for any former period since the Alaska cables were laid. The cable and telegraph lines are under the direction of the United States Signal Corps, and the personnel is usually efficient and the operators courteous and obliging. A further reduction in the cable and telegraph tolls was made during the year, and a night-letter service was established.

The radio stations maintained by the War and Navy Departments continue to give excellent service, and their field of usefulness is widening every year.

COAL-MINE DEVELOPMENT.

Development of coal mines in the Matanuska region and in the Bering River field continued during the year, the output from the Eska Creek mine and a mine at Moose Creek, in the Matanuska district, going largely to the Alaskan Engineering Commission at Anchorage for use in its locomotives and for manufacturing and domestic purposes at Anchorage and other construction points of the railroad. This mine was taken over by the Government during the past summer from the operators upon payment of a stipulated sum and is now being opened up in a comprehensive manner. The mine is shipping about 100 tons of coal per day to Anchorage. It is also expected that one or more mines will be opened in the Chickaloon district in the near future. Development work is now under way in that district under the direction of the Government. The Moose Creek coal mine is producing about 50 tons per day. It is my opinion, however, that before there will be any considerable mining of coal in Alaska the law providing for the leasing of coal lands must be amended so as to permit of more liberal regulations governing the granting of leases than those which have been authorized for this purpose.

The Katalla Anthracite Coal Co. is opening a mine in the Bering River field, and a railroad which will be completed the present year is being constructed to handle the output from the mine to tidewater on Controller Bay, where a dock and bunkers will be erected. The coal being mined is located on a 160-acre tract of coal land, patent to which was acquired by the company last year. The coal is said to be of excellent quality.

THE GOVERNOR'S OFFICE.

The volume of business transacted in the office of the governor of Alaska has increased enormously during the past four years. Much of this increase is due to the inauguration of a Territorial form of government in 1912, with an elective legislature of 24 members, and the consequent creation of a number of Territorial departments and boards which are charged with a variety of duties under Territorial laws. There has also been a large increase of strictly Federal business, as distinguished from Territorial, due to the growth of population and the development of the country along industrial and commercial lines. The selective-service law approved May 18, 1917, has imposed many strenuous duties upon the office, inasmuch as the governor is charged with the sole administration of the law in the Territory, there being no adjutant general in Alaska as there is in the different States, and who relieve the governors of those States of much of the work of detail. In a country of the great size and peculiar geographic and other conditions such as Alaska, the difficulties of registration under the selective-service law are infinitely greater than in any of the States. Among the difficulties to be overcome are the lack of adequate transportation and mail facilities and the remoteness of many precincts from the capital of the Territory, and these conditions necessitated a period of two months for the registration of eligibles, instead of one day, as in the States.

The work, however, has gone forward as satisfactorily as could be expected, and the exemption boards in the various registration districts have already assumed their duties.

Among the duties imposed upon the governor of Alaska, apart from those which are of the usual routine nature, are the following: Ex officio superintendent of the white schools, ex officio commissioner of health, president of the Territorial board of education, chairman of the Territorial banking board, chairman of the board of trustees of the Alaska Pioneers' Home, which also acts as a pension board for the granting of allowances to aged residents of the Territory; chairman of the Territorial board of road commissioners, ex officio member of the board of fish commissioners, superintendent of the board for the relief of destitution, chairman of the board for the supervision of school lands. Besides filling the above offices the governor also appoints and supervises the Alaska medical board, the dental board, the pharmacy board, and the boards of children's guardians in the respective judicial divisions, as well as the board of trustees of the Agricultural College and School of Mines. No compensation is attached to the Territorial offices. Congress makes an annual, and insufficient, appropriation for the salary of the governor's secretary, and the Territorial legislature makes an appropriation for clerical assistance.

In July and August of this year Hon. H. A. Meyer, assistant to the Secretary of the Interior, visited Alaska, the towns of Ketchikan, Juneau, Cordova, Valdez, Seward, and Anchorage being included in his itinerary.

Respectfully submitted.

J. F. A. STRONG, *Governor.*

THE SECRETARY OF THE INTERIOR,
Washington, D. C.

APPENDIXES.

APPENDIX A.

STATEMENT OF LIBRARY AND MUSEUM FUND.

*Receipts and disbursement of the Alaska Historical Library and Museum fund,
July 1, 1916, to June 30, 1917.*

RECEIPTS.

Date.	Received from—	Title or business.	Amount.
1916.			
July 1	Balance on hand.....		\$10,510.62
1	W. B. Thomas.....	Notary public.....	10.00
13	Clifford Mooers.....	do.....	10.00
13	John F. Coffey.....	do.....	10.00
17	Roy A. Dye.....	Member of bar.....	10.00
20	Victor E. Warner.....	Notary public.....	10.00
20	Frank H. Thomas.....	do.....	10.00
31	C. H. Clifton.....	do.....	10.00
31	Receipts from foreign and domestic corporations and the issuance of certificates with seal affixed for the month of July, 1916.....		101.00
Aug. 1	A. V. Thorns.....	Notary public.....	10.00
1	A. H. Kuettnner.....	do.....	10.00
8	William Martin.....	do.....	10.00
9	Edward M. Ball.....	do.....	10.00
11	H. A. Day.....	do.....	10.00
16	H. Ward Griffith.....	do.....	10.00
19	W. F. Whitely.....	do.....	10.00
21	George Kennedy.....	do.....	10.00
22	George Howard Birch.....	do.....	10.00
25	John P. Lindsay.....	do.....	10.00
25	F. B. Drane.....	do.....	10.00
25	Reed W. Hellig.....	do.....	10.00
25	Walter W. Kranich.....	do.....	10.00
29	Stanley R. Hess.....	do.....	10.00
31	Receipts from foreign and domestic corporations and the issuance of certificates with seal affixed for the month of August, 1916.....		72.00
Sept. 12	Wm. H. Smith.....	Notary public.....	10.00
13	Louis Karstaedt.....	Commissioner of deeds.....	5.00
20	Ernest Blue.....	Member of bar.....	10.00
30	Receipts from foreign and domestic corporations and the issuance of certificates with seal affixed for the month of September, 1916.....		21.00
Oct. 13	Ernest Blue.....	Notary public.....	10.00
19	Oscar M. Anderson.....	do.....	10.00
20	F. P. Wood.....	do.....	10.00
23	E. E. Silver.....	do.....	10.00
24	Guy McNaughton.....	do.....	10.00
25	Thos. Shaughnessy.....	do.....	10.00
31	Receipts from foreign and domestic corporations and the issuance of certificates with seal affixed for the month of October, 1916.....		78.25
Nov. 1	Chas. E. Naghel.....	Notary public.....	10.00
2	Wm. L. Fursman.....	do.....	10.00
3	Samuel R. Weiss.....	do.....	10.00
6	Robert M. Jones.....	Commissioner of deeds.....	5.00
8	John E. Worden.....	Notary public.....	10.00
13	Alberta Hanover.....	do.....	10.00
13	J. C. Moody.....	do.....	10.00
15	E. H. Pfaffle.....	do.....	10.00
17	M. E. Northway.....	do.....	10.00
27	Carl J. Brun.....	do.....	10.00
27	J. V. Sheldon.....	do.....	10.00
30	Receipts from foreign and domestic corporations and the issuance of certificates with seal affixed for the month of November, 1916.....		39.00

*Receipts and disbursement of the Alaska Historical Library and Museum fund,
July 1, 1916, to June 30, 1917—Continued.*

RECEIPTS—Continued.

Date.	Received from—	Title or business.	Amount.
1916.			
Dec. 1	W. S. Bonfield	Member of bar	\$10.00
1	Sherman Duggan	do	10.00
4	John Lyons	Notary public	10.00
22	Julius Rahmstorf	do	10.00
22	Jessie M. Howard	do	10.00
26	Daniel Webster	do	10.00
29	M. R. Healy	do	10.00
29	M. V. Lattin	do	10.00
31	Receipts from foreign and domestic corporations and the issuance of certificates with seal affixed for the month of December, 1916.		17.00
1917.			
Jan. 16	Eleanor T. Wright	Notary public	10.00
23	James L. Freeburn	do	10.00
31	Receipts from foreign and domestic corporations and the issuance of certificates with seal affixed for the month of January, 1917.		40.00
Feb. 1	E. H. Osborne Vaudin	Notary public	10.00
2	A. J. Adams	do	10.00
2	Selma N. Scott	do	10.00
2	J. W. Gilson	do	10.00
13	Anthony J. Dimond	do	10.00
15	I. J. Macomber	do	10.00
24	Harvey M. Stackpole	do	10.00
28	Receipts from foreign and domestic corporations and the issuance of certificates with seal affixed for the month of February, 1917.		40.40
Mar. 1	H. J. Vinal	Notary public	10.00
1	Andrew Morrison Taylor	do	10.00
1	John C. Murphy	do	10.00
7	H. W. Willmoth	do	10.00
8	Herbert M. Pratt	do	10.00
13	H. R. Moore	do	10.00
13	J. L. Anders	do	10.00
13	Guy B. Erwin	do	10.00
14	Isaac R. Hitt	Commissioner of deeds.	5.00
15	Harry E. Carter	Notary public	10.00
15	H. H. Folsom	do	10.00
16	K. L. Steberg	do	10.00
31	Receipts from foreign and domestic corporations and the issuance of certificates with seal affixed for the month of March, 1917.		31.00
Apr. 2	J. G. Rivers	Notary public	10.00
2	J. C. Williams	do	10.00
2	D. F. Eagan	do	10.00
11	Frederick J. Furnivall	do	10.00
14	James S. Truitt	do	10.00
21	E. P. Refling	do	10.00
26	A. J. Day	do	10.00
27	Louis Strauss	do	10.00
28	L. A. Edwards	do	10.00
30	V. P. Abbott	do	10.00
30	Receipts from foreign and domestic corporations and the issuance of certificates with seal affixed for the month of April, 1917.		2.00
May 5	Lillian D. Hill	Notary public	10.00
5	R. R. Douse	do	10.00
7	John F. Henson	do	10.00
8	Accrued interest on certificate of deposit for \$9,000, 1 year at 4 per cent, ending Apr. 1, 1917, credited May 8, 1917.		360.00
10	E. T. Wolcott	Notary public	10.00
10	Royal A. Gunnison	do	10.00
10	R. M. Crawford	do	10.00
17	Arthur G. Shoup	do	10.00
18	E. Blomqvist	do	10.00
18	P. D. Blodgett	do	10.00
18	Victor Joseph Dwyer	do	10.00
18	D. B. Chace	do	10.00
18	Frank J. Hayes	do	10.00
31	Receipts from foreign and domestic corporations and the issuance of certificates with seal affixed for the month of May, 1917.		16.00
June 1	Robert de Journal	Notary public	10.00
1	E. M. Marx	do	10.00
5	C. T. Boyles	do	10.00
9	A. H. de Propper	Commissioner of deeds.	5.00
12	Will H. Winston	Notary public	10.00
16	E. L. Whittemore	do	10.00

*Receipts and disbursement of the Alaska Historical Library and Museum fund,
July 1, 1916, to June 30, 1917—Continued.*

RECEIPTS—Continued.

Date.	Received from—	Title or business.	Amount.
1917.			
June 16	Henry F. Snesdorf.....	Notary public	\$10.00
16	Robert S. Bragaw, sr.....	do.....	10.00
18	R. L. Hebert.....	do.....	10.00
18	R. V. Watkins.....	do.....	10.00
18	Albert R. Heilig.....	do.....	10.00
22	R. E. Robertson.....	do.....	10.00
27	G. J. Lomen.....	do.....	10.00
29	George M. Barry.....	do.....	10.00
30	Receipts from foreign and domestic corporations and the issuance of certificates with seal affixed for the month of June, 1917.		15.00
	Total.....		11,383.27

DISBURSEMENTS.

1916.			
July 3	James Wyllie.....	Voucher No. 29.....	\$25.00
13	Dispatch Publishing Co.....	Voucher No. 30.....	13.85
13	W. F. Skoog.....	Voucher No. 31.....	26.33
13	Alaska Transfer Co.....	Voucher No. 32.....	3.00
13	Valdez Weekly Miner.....	Voucher No. 33.....	4.50
13	The All-Alaska Review.....	Voucher No. 34.....	2.90
13	Petersburg Weekly Report.....	Voucher No. 35.....	1.45
13	The Daily Alaskan.....	Voucher No. 36.....	15.00
13	Empire Printing Co.....	Voucher No. 37.....	6.65
13	do.....	Voucher No. 38.....	10.00
13	The Daily Progressive Miner.....	Voucher No. 39.....	8.00
13	The Douglas Island News.....	Voucher No. 40.....	3.65
13	The Seward Gateway Publishing Co.....	Voucher No. 41.....	28.16
13	The Post Publishing Co.....	Voucher No. 42.....	8.33
13	Sheldon Jackson School Print Shop.....	Voucher No. 43.....	.90
13	The Chitina Leader.....	Voucher No. 44.....	12.50
31	James Wyllie.....	Voucher No. 45.....	25.00
Aug. 12	Leslie-Judge Co.....	Voucher No. 46.....	10.00
31	James Wyllie.....	Voucher No. 47.....	25.00
Sept. 30	do.....	Voucher No. 48.....	25.00
Oct. 9	Gunnison & Robertson.....	Voucher No. 1.....	20.00
10	James Wyllie.....	Voucher No. 2.....	8.33
23	Pacific Fisherman.....	Voucher No. 3.....	2.00
31	Jacob Meyer.....	Voucher No. 4.....	16.67
Nov. 25	Fairbanks Daily News-Miner.....	Voucher No. 5.....	30.00
25	do.....	Voucher No. 6.....	6.67
Dec. 4	Jacob Meyer.....	Voucher No. 7.....	25.00
4	Alaska Bindery.....	Voucher No. 8.....	60.00
8	Daily Alaska Dispatch.....	Voucher No. 9.....	9.66
19	Valdez Daily Prospector.....	Voucher No. 10.....	1.50
19	J. S. Morgan.....	Voucher No. 11.....	1.50
30	The Citizen Publishing Co.....	Voucher No. 12.....	10.00
30	Jacob Meyer.....	Voucher No. 13.....	25.00
1917.			
Jan. 12	Juneau Transfer Co.....	Voucher No. 14.....	.50
12	Washington University State Historical Society.....	Voucher No. 15.....	4.00
12	A. N. Marquis & Co.....	Voucher No. 16.....	5.00
18	The Wrangell Sentinel.....	Voucher No. 17.....	7.50
18	The National Geographic Society.....	Voucher No. 18.....	2.00
31	Jacob Meyer.....	Voucher No. 19.....	25.00
Feb. 6	The Record Citizen.....	Voucher No. 20.....	18.00
7	Alaska Bindery.....	Voucher No. 21.....	35.00
Mar. 1	Jacob Meyer.....	Voucher No. 22.....	25.00
6	Nome Daily Nugget.....	Voucher No. 23.....	18.00
6	Nome Industrial Worker.....	Voucher No. 24.....	34.16
31	Jacob Meyer.....	Voucher No. 25.....	25.00
Apr. 9	D. Appleton & Co.....	Voucher No. 26.....	3.00
19	Jacob Meyer.....	Voucher No. 27.....	15.00
28	Alaska Bindery.....	Voucher No. 28.....	107.25
30	C. C. Nichols.....	Voucher No. 29.....	10.00
May 31	do.....	Voucher No. 30.....	25.00
June 18	Post-Intelligencer Co.....	Voucher No. 31.....	8.00
30	The Times Publishing Co.....	Voucher No. 32.....	9.00
30	C. C. Nichols.....	Voucher No. 33.....	25.00
	By balance.....		10,506.51
	Total.....		11,383.27

APPENDIX B.

Official Directory.

TERRITORIAL GOVERNMENT.

Governor.—John F. A. Strong, Juneau.

Secretary to the governor.—William W. Shorthill, Juneau.

Ex officio secretary of Alaska.—Charles E. Davidson, Juneau.

Delegate to Congress.—Charles A. Sulzer.

UNITED STATES SURVEYOR GENERAL'S OFFICE.

Juneau.—Charles E. Davidson, surveyor general; Martin George, chief clerk; Edward P. Kendall, chief draftsman; Charles E. Naghel, financial and general clerk; Frank A. Brittain, stenographer and typewriter; William Rugg, mineral draftsman; Ernest Taschek, Joseph W. Thacher, and Hiram E. Spear, draftsmen.

United States deputy surveyors.—Asa C. Baldwin, Valdez; H. P. M. Birkinbine, Haines; A. H. Bradford, Seattle, Wash.; H. P. Crowther, Juneau; William A. Hesse, Cordova; Charles S. Hubbell, Seattle, Wash.; Henry C. Ingram, Fairbanks; Frank A. Metcalf, Juneau; William Muncaster, Seattle, Wash.; Roy D. Pickett, Taylorsville, Cal.; Duke E. Stubbs, Aniak; Harold H. Waller, Seattle, Wash.; F. J. Wettrick, F. W. Williamson, Juneau.

United States mineral surveyors.—Asa C. Baldwin, Valdez; H. P. M. Birkinbine, Haines; A. G. Blake, Nome; A. H. Bradford, Seattle, Wash.; H. P. Crowther, Juneau; William W. Elmer, Portland, Oreg.; George O. Hallock, Kent, Wash.; William A. Hesse, Cordova; Charles S. Hubbell, Seattle, Wash.; Henry C. Ingram, Fairbanks; Frank A. Metcalf, Juneau; O. Adrian Nelson, Chitina; Roy D. Pickett, Taylorsville, Cal.; Irving McK. Reed, Nome; L. D. Ryus, Ketchikan; Dwight B. Skinner, Bellevue, Wash.; B. D. Stewart, Juneau; Duke E. Stubbs, Aniak; Harold H. Waller, Seattle, Wash.; R. F. Whitham, Olympia, Wash.; F. J. Wettrick, Victor H. Wilhelm, F. W. Williamson, Juneau.

OFFICE OF SECRETARY OF ALASKA.

Juneau.—Charles E. Davidson, ex officio secretary; A. W. Fox, chief clerk.

UNITED STATES CUSTOMS OFFICIALS.

Juneau.—J. F. Pugh, collector; O. D. Garfield, special deputy collector; M. S. Whittier, deputy collector and inspector; George M. Simpkins, deputy collector and inspector; Myrven H. Sides, stenographer and clerk.

Ketchikan.—Milton S. Dobbs, deputy collector in charge; George W. Woodruff, deputy collector and inspector; John L. Abrams, deputy collector and inspector.

Wrangell.—F. E. Bronson, deputy collector in charge.

Skagway.—Fred J. Vandewall, deputy collector in charge; G. G. Miller, deputy collector and inspector.

Sulzer.—J. D. Wynne, deputy collector in charge.

Nome.—R. W. J. Reed, deputy collector in charge.

St. Michael.—Edwin R. Stivers, deputy collector in charge.

Cordova.—George Kennedy, deputy collector in charge.

Unalaska.—N. E. Bolshanin, deputy collector in charge.

Eagle.—J. J. Hilliard, deputy collector in charge.

Fortymile.—John Elden, deputy collector in charge.

UNITED STATES COURTS.

Division No. 1.—Judge, Robert W. Jennings, Juneau; court stenographer, L. A. Green, Juneau; clerk of court, J. W. Bell, Juneau; court librarian, J. F. Hurley, Juneau; deputy clerks, John T. Reed, Lafe E. Spray, C. Z. Denny, Juneau; William T. Mahoney, Ketchikan; Edward A. Rasmuson, Skagway. United States marshal, J. M. Tanner, Juneau; chief deputy, W. W. Casey, Jr., Juneau; deputy United States marshals, James L. Manning, H. B. Fossas, Juneau; H. F. Morton, Douglas; N. O. Hardy, Skagway; J. W. Combs, Haines; Martin Kildall, Petersburg; H. J. Wallace, Wrangell; Henry L. Bahrt, Sitka; C. D. Calhoun, Craig; W. B. Sharpe, Ketchikan; J. J. Egan, Tenakee. United

States attorney, James A. Smlser, Juneau; assistant United States attorneys, J. J. Reagan, Juneau; William A. Holzheimer, Ketchikan; clerk to United States attorney, Ina S. Liebhardt, Juneau. United States commissioners, Newark L. Burton, Juneau; John Henson, Douglas; William T. Mahoney, Ketchikan; Edward A. Rasmuson, Skagway; J. J. Kennedy, Haines; John C. Allen, Petersburg; C. E. Weber, Wrangell; Charles A. Fox, Craig; U. S. Rush, Kasaaan; R. W. De Armond, Sitka; Walter Ramsayer, Chatham; A. H. Kuettnner, Killisnoo; E. W. Cragin, Tenakee; I. J. Macomber, Chichagof; E. M. Axelsson, Yakutat.

Division No. 2.—Judge, John Randolph Tucker, Nome; clerk of court, G. A. Adams, Nome; deputy clerks, W. C. McGuire, Carl J. Lomen, Frank C. Dean, F. W. Lilly, Nome. United States marshal, Emmet R. Jordan, Nome; chief deputy, Adrian B. Miller, Nome; deputy United States marshals, L. D. Lewis, Elmer Reed, Harry Pigeon, Catherine A. Anpher, Nome; Hugh J. Lee, Fortuna Ledge; John Little, St. Michael; M. R. Luther, Teller; Sam C. Taylor, Council; Robert H. Humber, Candle; Bernard J. O'Reilly, Kiana. United States attorney, F. M. Saxton, Nome; assistant United States attorney, George B. Mundy, Nome. United States commissioners, James Frawley, Nome; Telbert L. Richardson, Barrow; George D. Campbell, Candle; John D. Flanagan, Council; John H. Rengstorff, Kiana; Milton L. White, Kotzebue; Martin F. Moran, Fortuna Ledge; Charles J. Koen, St. Michael; W. J. Worcester, Shelton; William N. Marx, Teller; Henry Sethmann, Haycock.

Division No. 3.—Judge, Fred M. Brown, Valdez; court stenographer, Isaac Hamburger, Valdez; clerk of court, Arthur Lang, Valdez; deputy clerks, Charles A. Hand, Charles H. Wilcox, John B. Miller, Valdez; Leopold David, Anchorage. United States marshal, F. R. Brennenman, Valdez; chief deputy, J. H. D. Bouse, Valdez; deputy United States marshals, A. C. Dowling, H. C. De Line, S. O. Casler, Valdez; C. W. Mossman, Anchorage; S. T. Brightwell, Cordova; W. J. Feaster, Chitina; Isaac Evans, Seward; H. R. Brown, Knik; Karl Armstrong, Kodiak; Charles McCallum, Unga; Paul Buckley, Unalaska; H. J. Paulsen, Dillingham; James M. Millsap, McCarthy; A. F. Hoffman, Matanuska; V. L. Sedgwick, Naknek; F. J. Cameron, Seldovia; N. E. Ohlsson, Girdwood; H. C. Kavanaugh, Anchorage; M. H. Healey, Talkeetna. United States attorney, William A. Munly, Valdez; assistant United States attorney, Hillard G. Bennett, Valdez. United States commissioners, George J. Love, Valdez; N. E. Bolshanin, Unalaska; L. H. French, Dillingham; William O'Connor, McCarthy; C. Parker Smith, Copper Center; Edward F. Medley, Cordova; Fred Phillips, Ilamna; Charles C. Naughton, Katalla; Leopold David, Anchorage; S. Irvine Stone, Kodiak; Frank G. Ennis, Seward; William Nielsen, Naknek; J. L. Heron, Bethel; Charl Almy, Talkeetna; F. C. Driffeld, Unga; Anthony McGettigan, Chisana. Justices of the peace, C. M. Barry, Chitina; Royden D. Chase, Anchorage; Sid S. Bettman, Knik; C. L. Magill, Kenai; William A. Dickey, Latouche; Ralph V. Anderson, Seldovia.

Division No. 4.—Judge, Charles E. Bunnell, Fairbanks; court stenographer, E. T. Wolcott, Fairbanks; clerk of court, J. E. Clark, Fairbanks; deputy clerks, Frank B. Hall, L. F. Protzman, Fairbanks; Asa M. Kilgore, Iditarod; Thomas J. De Vane, Ruby; assistant clerks, Grace Fisher, Melvin G. Anderson, Fairbanks. United States marshal, Lewis T. Erwin, Fairbanks; chief deputy, J. H. Miller, Fairbanks; deputy United States marshals, M. O. Carlson, H. R. Tull, Helen Criswell, John C. Wood, Peter McMullen, Fairbanks; G. G. Geraghty, Iditarod; C. L. Vawter, Tanana; John B. Powers, Eagle; T. H. Long, Ruby; E. D. Heppenstall, Wiseman; J. L. Anders, Hot Springs; O. T. Spencer, Circle; Thomas E. Winecoff, Fort Yukon; E. H. Poppell, Chatanika; M. F. Miller, Brooks; James Hagan, Nenana. United States commissioners, Howard J. Atwell, Livengood; John Barker, Beaver City; Wade Blaker, Fox City; Robert E. Burns, Nenana; John J. Donovan, Franklin; Joseph C. Dehn, Tanana; Thomas J. De Vane, Ruby; Wilbur F. Green, Tacotna; Asa M. Kilgore, Iditarod; A. J. Griffin, Richardson; Reed W. Heilig, Fairbanks; Preston J. Hilliard, Eagle; George W. Ledger, Rampart; Frank W. Lamb, Nulato; Vance R. McDonald, Long City; William O. Young, Hot Springs; Frank A. Reynolds, Circle; Duke E. Stubbs, Aniak; William R. Taylor, Glacier; J. C. Moody, Ophir; Samuel R. Weiss, Chatanika; Frank C. White, Fort Yukon; Thomas B. Wright, Wiseman. United States attorney, R. F. Roth, Fairbanks; assistant United States attorneys, Harry E. Pratt, Fairbanks; E. Coke Hill, Ruby; clerks to United States attorney, Emma Haggren, Ella Knudsen, Fairbanks.

UNITED STATES LAND OFFICE.

Division No. 1.—C. B. Walker, register, Juneau; Frank A. Boyle, receiver, Juneau.

Division No. 2.—G. A. Adams, ex officio register, Nome; E. R. Jordan, ex officio receiver, Nome.

Division No. 3.—Included in division No. 1.

Division No. 4.—J. E. Clark, ex officio register, Fairbanks; Lewis T. Erwin, ex officio receiver, Fairbanks.

Field division (headquarters, Juneau).—Chief, C. R. Arundell; special agents, Mason B. Leming, J. E. Busch, George L. Armstrong; timber cruisers, Nelson Brigham, Frank K. Andrews; mineral inspector, George A. Parks; clerk and stenographer, Roy D. Anderson.

DEPARTMENT OF AGRICULTURE.

C. C. Georgeson, D. Sc., agronomist in charge, Sitka; H. E. Pratt, B. Sc., assistant in charge, Kodiak; S. H. Loyd, B. Sc., animal husbandman, Kodiak; M. D. Snodgrass, B. Sc., in charge, Fairbanks; W. T. White, B. Sc., assistant, Fairbanks; G. W. Gasser, B. Sc., assistant in charge, Rampart; Frederick E. Rader, B. Sc., assistant in charge, Matanuska.

EDUCATION.

White schools. (See Territorial boards, etc.)

Native schools.—P. P. Claxton, Commissioner of Education, Washington, D. C.; W. T. Lopp, superintendent of education of natives of Alaska, Seattle, Wash.; H. C. Sinclair, supply agent; A. H. Quarles, special disbursing agent, Seattle, Wash.; C. W. Hawkesworth, superintendent southeastern district, Juneau; A. H. Miller, acting superintendent southwestern district, Anchorage; George E. Boulter, superintendent upper Yukon district, Tanana; W. H. Johnson, superintendent western district, St. Michael; W. C. Shields, superintendent northwestern district, Nome. Physicians, W. A. Borland, Nushagak; L. H. French, Nushagak; F. W. Lamb, Nulato; D. S. Neuman, Nome; James P. Mooney, Juneau; W. H. Chase, Cordova; E. C. Gross, Ellamar (contract); C. Welch, Candle (contract); W. Ramsey, Council (contract).

INTERNAL REVENUE.

Charles C. John, field deputy, Juneau; George Hutchinson, stamp deputy, Fairbanks.

IMMIGRATION SERVICE.

William G. Strench, inspector in charge, Ketchikan; Charles W. Durkee, jr., immigrant inspector, Skagway.

FEDERAL MINE INSPECTION.

Sumner S. Smith, inspector in charge, Juneau.

BUREAU OF FISHERIES.

Ward T. Bower, agent at large; E. M. Ball, H. J. Christoffers, James H. Lyman, assistant agents at large; E. P. Walker, inspector, Wrangell; H. C. Fassett, A. H. Proctor, agents and caretakers; Mr. and Mrs. George Haley, school-teachers, St. Paul Island; Arnold C. Reynolds, school-teacher, St. George Island; William T. Miles, Henry P. Adams, physicians; G. Dallas Hanna, storekeeper; C. F. Townsend, Christian L. Larson, wardens at large; Fred H. Gray, Shirley A. Baker, Henry C. Scudder, Charles E. Crompton, Jesse L. Nevill, wardens, Pribilof Islands; Edwin Wentworth, superintendent fisheries station, Afognak; Charles B. Grater, superintendent fisheries station, Yes Bay; Hans Blerd, master fisheries steamer *Roosevelt*; Edwin Hofstad, master fisheries steamer *Osprey*.

STEAMBOAT-INSPECTION SERVICE.

George H. Whitney, inspector of hulls; Peter G. Peltret, inspector of boilers; George E. Mann, clerk, Juneau; Thomas P. Deering, inspector of hulls; Savine L. Craft, inspector of boilers; Jerome A. Deslo, clerk, St. Michael.

LIGHTHOUSE SERVICE, SIXTEENTH DISTRICT.

Walter C. Dibrell, inspector, Ketchikan; Ralph R. Tinkham, superintendent; Walter G. Will, assistant superintendent; Albert B. Edmonds, chief clerk; William K. Spaulding, Ethel H. Rudge, clerks; Rolf Foosness, depot keeper; William J. Wright, mechanician; Michael Harris, foreman, Ketchikan.

BOARD OF ALASKA ROAD COMMISSIONERS.

W. P. Richardson, brigadier general of Infantry, president; John Zug, captain, Corps of Engineers, disbursing officer; W. H. Waugh, captain, Corps of Engineers, engineer officer, Juneau.

ALASKAN ENGINEERING COMMISSION.

William C. Edes, chairman, Anchorage; Capt. Frederick Mears, United States Army, Anchorage; Thomas Riggs, jr., Nenana; A. Christensen, manager land and industrial department, Anchorage.

FOREST SERVICE.

Tongass National Forest.—R. L. Fromme, forest supervisor, Ketchikan; George L. Drake, deputy forest supervisor, Ketchikan; R. E. Kan Smith, forest examiner; J. M. Wyckoff, clerk and special fiscal agent; Marguerite B. Todd, clerk; C. T. Gardner, ranger, Ketchikan; James Allen, ranger, Petersburg; W. H. Babbitt, ranger, Juneau; George H. Peterson, ranger, Sitka; J. P. Williams, ranger, Craig; George H. Canfield, assistant engineer, United States Geological Survey, in charge of stream gauging work in cooperation with forest service.

Chugach National Forest.—R. L. Fromme, forest supervisor, Ketchikan; T. M. Hunt, forest supervisor, Seward; R. J. Settles, clerk, Seward; W. J. McDonald, ranger, Cordova; A. L. Norgren, ranger, Anchorage; C. A. Nettleton, ranger, Katalla.

GAME WARDENS.

Division No. 1.—Frank A. Aldrich, Juneau; Patrick Hamilton, Ketchikan; Charley Klontech, Sitka.

Division No. 2.—Charles Neuhaus, Nome.

Division No. 3.—J. A. Baughman, Seward; Peter S. Ericksen, McCarthy; Aron Ericson, Anchorage; Charles Madsen, King Cove.

Division No. 4.—R. S. McDonald, Hjalmar Nordale, Fairbanks; Robert E. Steel, Eagle.

SPECIAL EMPLOYEES FOR SUPPRESSING LIQUOR TRAFFIC AMONG NATIVES.

J. F. McDonald, Juneau; Thomas Gaffney, Nome; Joseph A. Bourke, Valdez; A. E. Light, Ruby.

OFFICIALS AND BOARDS AUTHORIZED BY TERRITORIAL LEGISLATURE.

TERRITORIAL TREASURY.

Walstein G. Smith, treasurer; Juneau; Charles E. Harland, clerk, Juneau.

MINE INSPECTION.

William Maloney, inspector, Nome.

PUBLIC HEALTH.

Gov. J. F. A. Strong, ex officio commissioner of health, Juneau; assistant health commissioners, L. P. Dawes, division No. 1, Juneau; W. D'Arcy Chace, division No. 2, Nome; W. H. Chase, division No. 3, Cordova; J. A. Sutherland, division No. 4, Fairbanks.

VITAL STATISTICS.

Charles E. Davidson, ex officio registrar, Juneau; Plooma Crowther, clerk, Juneau.

TERRITORIAL BANKING BOARD.

Gov. J. F. A. Strong, president, Juneau; Walstein G. Smith, secretary, Juneau; Charles E. Davidson, Juneau.

BOARD OF COMMISSIONERS FOR PROMOTION OF UNIFORM LEGISLATION.

Royal A. Gunnison, Juneau; William H. Whittlesey, Seward; John A. Clark, Fairbanks.

BOARD OF MEDICAL EXAMINERS.

H. C. De Vigne, Juneau (temporarily absent); B. L. Myers, Ketchikan; D. S. Neuman, Nome; Curtis W. Welch, Candle; J. H. Romig, J. M. Sloan, Seward; Aline B. Bradley, H. J. McCallum, Fairbanks.

BOARD OF DENTAL EXAMINERS.

W. E. Zuber, president, Ketchikan; E. H. Kaser, secretary-treasurer, Juneau; L. W. Fromm, Nome; O. J. Keating, Seward; Robert R. Myers, Fairbanks.

BOARD OF PHARMACY.

W. H. Seeley, president, Juneau; D. H. Christoe, secretary-treasurer, Douglas; William Ramsay, Council; Joseph G. McDougall, Nome; Edward V. Bytle, Cordova; William H. Caswell, Valdez; Frank H. Dunham, Ralph T. Kuton, Fairbanks.

TERRITORIAL BOARD OF EDUCATION.

Gov. J. F. A. Strong, president, Juneau; J. R. Heckman, Ketchikan; John Sundback, Nome; O. P. Hubbard, Valdez; O. P. Gaustad, Fairbanks.

TERRITORIAL COMMISSIONER OF EDUCATION.

L. D. Henderson, Juneau; clerk to commissioner, Lenore Chapin, Juneau.

TERRITORIAL ATTORNEY GENERAL.

George B. Grigsby, Juneau; clerk to attorney general, Ruth Griffin, Juneau.

BOARDS OF CHILDREN'S GUARDIANS.

Division No. 1, Juneau.—Robert W. Jennings, United States district judge; J. M. Tanner, United States marshal; Mrs. Joseph W. Thacher.

Division No. 2, Nome.—John Randolph Tucker, United States district judge; E. R. Jordan, United States marshal; Mrs. Thomas Mulligan.

Division No. 3, Valdez.—Fred M. Brown, United States district judge; F. R. Brenneman, United States marshal (position of woman member vacant at present).

Division No. 4, Fairbanks.—Charles E. Bunnell, United States district judge; L. T. Erwin, United States marshal; Mrs. Luther C. Hess.

BOARD OF TRUSTEES, ALASKA PIONEERS' HOME.

Gov. J. F. A. Strong, chairman, Juneau; C. C. Georgeson, secretary, Sitka; Allen Shattuck, treasurer, Juneau; Arthur G. Shoup, superintendent of home, Sitka.

BOARD FOR RELIEF OF DESTITUTION.

Gov. J. F. A. Strong, superintendent, Juneau. Advisory members: J. W. Bell, clerk of United States district court, Juneau; Emmet R. Jordan, United States marshal, Nome; F. R. Brenneman, United States marshal, Valdez; L. T. Erwin, United States marshal, Fairbanks.

TERRITORIAL BOARD OF ROAD COMMISSIONERS.

Gov. J. F. A. Strong, chairman; Charles E. Davidson, secretary; Walstein G. Smith, member, Juneau.

DIVISIONAL BOARDS OF ROAD COMMISSIONERS.

Division No. 1.—Ed. C. Hurlbutt, commissioner, Juneau; assistants, H. T. Tripp, T. E. P. Keegan, Juneau.

Division No. 2.—John A. Wilson, commissioner, Nome; assistants, A. D. Poteet, Nome; E. H. Pfaffle, Council.

Division No. 3.—James E. Wilson, commissioner, Valdez; assistants, George H. Merrifield, Valdez; A. A. Shonbeck, Anchorage.

Division No. 4.—H. H. Ross, commissioner, Fairbanks; assistants, J. E. Riley, Iditarod; William O. Robertson, Ruby.

TERRITORIAL BOARD OF FISH COMMISSIONERS.

B. M. Behrends, Juneau; John R. Beegle, Ketchikan; W. H. Spaulding, Hawk Inlet.

BOARD OF REGENTS, AGRICULTURAL COLLEGE AND SCHOOL OF MINES.

Division No. 1.—L. S. Keller, Skagway.

Division No. 2.—Phil Ernst, Nome.

Division No. 3.—L. F. Shaw, Anchorage.

Division No. 4.—Mrs. L. C. Hess, A. R. Hellig, R. C. Wood, H. B. Parkin, A. C. Nordale, Fairbanks.

APPENDIX C.

Imports and Exports.

ANNUAL REPORT OF THE COLLECTOR OF CUSTOMS FOR THE CALENDAR YEAR 1916.

UNITED STATES CUSTOMS SERVICE,
OFFICE OF THE COLLECTOR,
Port of Juneau, Alaska, February 15, 1917.

A marked advance in the commercial and industrial progress of the Territory is shown in this report of commerce and customs for the calendar year 1916, the total commerce having reached the unprecedented value of nearly \$120,000,000. Greater production from natural resources is the chief element of increase, although prevailing higher prices of the principal product commodities and receipts of merchandise from the United States, likewise affected, enter largely into the cause.

The importance of the different sections of the Territory covered by the judicial divisions has changed in the year. The southern section, or third division, owing to the greatly increased production of its copper mines and fisheries as well as larger receipts of merchandise from the United States incident to railroad construction and resulting settlement and development of the adjacent country, takes first place. An increase in production and trade occurred in each of the other divisions, the most important being in the first.

The gain in imports of merchandise from foreign ports is due to resumption of copper ore shipments from the Yukon Territory through Skagway to British Columbia, the increased exports by the exportation of ore from the copper mines in the first division to the same destination.

In the table below the items "Imports and exports of foreign gold and silver" and a considerable portion of the "Exports, foreign" are in transit commerce and do not enter into the actual trade of the Territory.

Commerce of Alaska.

	Calendar years.						
	1910	1911	1912	1913	1914	1915	1916
IMPORTS.							
Merchandise from the United States.....	\$17,431,588	\$15,169,149	\$21,992,761	\$21,689,690	\$21,610,890	\$22,293,168	\$30,834,798
Merchandise from foreign ports.....	669,614	519,221	925,034	751,173	662,904	500,519	1,544,182
Gold and silver from foreign ports.....	3,453,709	3,520,170	3,840,546	4,320,985	3,576,090	4,223,620	2,936,018
Total imports.....	21,554,911	19,208,540	26,758,341	26,761,848	25,849,844	26,017,307	35,314,998
EXPORTS.							
Merchandise to the United States.....	13,699,594	19,313,859	24,793,886	22,252,942	25,427,873	34,245,272	62,507,811
Merchandise and gold and silver to foreign ports.....	1,119,919	1,174,393	1,636,780	1,248,878	1,047,746	1,225,120	1,873,013
Domestic gold and silver to the United States...	15,195,954	14,699,694	16,031,705	12,959,266	14,729,906	16,090,411	16,332,117
Foreign gold and silver to the United States...	3,441,834	3,363,361	3,704,173	4,306,591	3,450,400	3,296,012	3,909,509
Total exports.....	33,457,301	38,546,307	46,166,544	40,767,677	44,655,924	54,856,815	84,622,450
Grand total of imports and exports.....	55,012,212	57,754,847	72,924,885	67,529,525	70,505,968	82,874,122	119,937,448

During the year several large shipments of supplies, construction materials, and operating appliances were received by the Government railroad regarding which no definite information was received at this office and the value of the same is not obtainable. Could it have been added to the imports the total commerce would be materially increased.

Within the past year the balance of trade in favor of the Territory has increased from \$27,000,000 to \$50,000,000 and the value of its products from \$50,000,000 to \$79,000,000.

A compilation of estimates covering the shipments of Alaskan products from the year 1868 to 1903, and authentic reports of this office from the latter to the present year inclusive presents the following result:

Sea and fur products.....	\$323,042,290
Mines and minerals.....	345,752,111

Total.....	668,794,401
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In the following table important gains will be noted in all the items except antimony ore, gypsum, and marble. A new item of production, tungsten, appears in the table and it is expected that the output of this metal will increase. The fur products of the Pribilof Islands and the shipment of other furs by mail are largely responsible for the increase in this item. These shipments were not included in the table last year. A new feature in this table is the quantity of the shipments of the important commodities.

Substantial gains will be observed in customs business, number and tonnage of vessels engaged both in the foreign and domestic trade, as shown in the respective tables.

An interesting addition to this report is the extension of the comparative tables of imports and exports, and shipments of Alaskan products to include the period from the year 1903 to 1916, inclusive.

Value of domestic merchandise and gold and silver shipped from Alaska to the United States.

Articles.	1913		1914		1915		1916	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Antimony ore, lbs.					2,288,304	\$189,845	1,729,177	\$179,685
Copper ore. lbs.	24,498,118	\$3,765,132	25,261,888	\$3,865,342	69,366,106	12,354,163	135,289,219	\$5,534,039
Fish:								
Salmon, canned, lbs.	177,449,298	13,349,438	198,691,796	17,906,215	210,110,632	17,892,377	237,764,810	21,538,113
Salmon, other.		1,074,453		750,512		604,271		987,665
All other. lbs.	26,981,932	1,092,274	21,134,514	908,921	17,029,756	837,364	19,986,430	1,279,305
Fish fertilizers, lbs.	3,837,120	53,657	3,234,500	51,463	1,565,780	20,898	1,910,880	25,466
Fish and whale oil. galls.	673,757	243,096	1,015,196	310,344	756,897	300,332	897,094	349,470
Furs.		472,583		610,401		411,411		919,998
Gypsum. tons.	25,875	129,375	28,015	107,347	16,450	85,800	13,275	65,100
Lead ore. lbs.					619,766	31,476	1,281,291	79,762
Marble.		92,588		119,796		104,888		29,437
Tin ore. lbs.	261,950	72,734	270,800	71,400	413,710	79,471	229,129	110,333
Tungsten ore, lbs.							68,620	54,870
All other merchandise.		1,188,914		1,226,132		1,353,479		1,576,418
Gold and silver ¹ .		12,969,266		14,729,905		16,090,411		16,332,117
Total.		34,693,590		40,157,778		50,335,683		79,051,758

¹ Gold and silver shipped to the United States.

Judicial divisions.	1910	1911	1912	1913	1914	1915	1916
First	\$3,262,083	\$3,730,264	\$4,040,858	\$3,586,164	\$4,177,069	\$5,350,209	\$5,638,237
Second	3,699,674	3,246,498	3,138,881	2,236,057	2,602,273	2,796,952	3,035,631
Third	317,572	404,861	734,507	592,008	1,491,248	1,649,453	1,523,206
Fourth	7,916,325	7,313,071	8,117,459	6,542,037	6,399,315	6,293,797	6,134,893
Total	15,195,954	14,699,694	16,031,705	12,959,266	14,729,905	16,090,411	16,332,117

The following table of passenger movement for six years indicates the travel by regularly established routes to and from the District and the Yukon Territory. Tourists and cannery employees bound for remote places are not included.

The Eagle and Dawson movement shows the local frontier travel, which must not be considered with the general account, as the greater number of these passengers arrived at or departed from Ketchikan or St. Michael and have been accounted for in their returns.

	1911	1912	1913	1914	1915	1916
Arrivals from the United States and British Columbia:						
Southeastern, southern, and western Alaska.	19,924	20,645	21,963	23,822	25,548	27,528
Nome, St. Michael, and Bering Sea.	2,203	2,067	1,796	1,491	1,455	1,078
Total	22,127	22,712	23,758	25,313	27,003	28,606
Departures to the United States and British Columbia:						
Southeastern, southern, and western Alaska.	17,525	18,502	21,376	22,645	19,793	26,426
Nome, St. Michael, and Bering Sea.	3,741	3,375	2,974	1,863	1,614	1,453
Total	21,266	21,877	24,350	24,538	21,407	26,869
Arrivals at Eagle from Dawson, Yukon Territory.	1,107	594	914	785	1,066	1,182
Departures from Eagle to Dawson, Yukon Territory.	808	985	1,443	1,102	873	727
Total	1,915	1,579	2,362	1,887	1,939	1,909

Comparative statement of imports and exports for 14 years.

1903.....	\$44,878,222	1910.....	\$55,000,337
1904.....	53,417,799	1911.....	57,754,847
1905.....	54,116,582	1912.....	72,924,885
1906.....	63,488,294	1913.....	67,529,525
1907.....	48,280,512	1914.....	70,505,868
1908.....	53,776,804	1915.....	82,874,122
1909.....	58,923,143	1916.....	119,937,443

Comparative Statement of Alaskan products shipped from Alaska to the United States for 14 years.

1903.....	\$15,928,217	1910.....	\$28,660,279
1904.....	19,655,911	1911.....	33,856,264
1905.....	22,065,733	1912.....	40,354,178
1906.....	30,759,159	1913.....	34,693,590
1907.....	27,682,263	1914.....	40,157,778
1908.....	30,299,788	1915.....	50,335,683
1909.....	31,686,112	1916.....	79,051,758

Comparative statement showing value of merchandise shipped from the United States to the different divisions of Alaska.

Divisions.	1912	1913	1914	1915	1916
Southeastern.....	\$9,769,224	\$9,725,472	\$11,075,532	\$10,320,411	\$13,589,867
Southern.....	4,321,689	3,979,178	4,039,706	6,313,066	9,263,730
Bering Sea.....	4,168,934	4,200,520	3,516,983	3,946,582	4,106,909
Yukon River.....	3,732,914	3,784,520	2,978,640	2,704,069	3,855,197
Total.....	21,992,761	21,589,690	21,610,800	23,293,168	30,834,738

The tables following give the value of merchandise shipped to Alaska from the United States for the year 1916, segregated as to place of consignment, with comparative statements for 5 years, and customs transactions for 11 years.

Value of merchandise shipped from the United States to southeastern Alaska.

Auk Bay.....	\$13,566	Metlakatla.....	\$26,091
Burnett Inlet.....	46,616	Molra Sound.....	20,721
Cape Edwards.....	83,397	Mount Andrew.....	13,586
Chatham.....	40,396	Nakat Inlet.....	27,378
Chichagof.....	19,973	Noyes Island.....	13,847
Chilkoot.....	111,213	Petersburg.....	435,962
Chomley.....	154,783	Point Armstrong.....	26,337
Craig.....	90,599	Point Conclusion.....	19,293
Douglas.....	565,181	Point Ellis.....	78,763
Doyhof.....	22,103	Point Walter.....	69,775
Dupont.....	237,470	Point Warde.....	45,740
Dundas.....	95,789	Quadra.....	63,532
Excursion Inlet.....	98,065	Roe Point.....	95,436
Funter Bay.....	128,471	Rose Inlet.....	65,996
Gambier Bay.....	35,953	Saginaw Bay.....	8,565
George Inlet.....	25,728	Santa Ana.....	33,730
Glacier Bay.....	48,240	Shakan.....	62,143
Gypsum.....	8,060	Sitka.....	165,572
Hadley.....	65,504	Skagway.....	423,274
Haines.....	228,607	Skowl Arm.....	34,006
Hawk Inlet.....	138,997	Sulzer.....	39,191
Hegeta.....	28,643	Taku Harbor.....	100,747
Hidden Inlet.....	32,416	Tee Harbor.....	74,337
Hoonah.....	155,013	Tenakee.....	86,965
Hunters Bay.....	43,248	Thane.....	650,139
Hydaburg.....	10,652	Thomas Bay.....	6,347
Idaho Inlet.....	4,694	Tokeen.....	26,391
Jualin.....	24,628	Treadwell.....	1,332,308
Juneau.....	3,627,545	Tyes.....	15,021
Kake.....	142,240	Union Bay.....	28,016
Karheen.....	58,400	Ward Cove.....	5,205
Kasaan.....	118,797	Waterfall.....	96,264
Ketchikan.....	1,935,603	Windham Bay.....	11,237
Killsnoo.....	33,254	Wrangell.....	518,680
Klawock.....	55,219	Yes Bay.....	130,725
Lake Bay.....	37,756		
Loring.....	150,643	Total.....	13,589,867

Comparative statement of principal places in southeastern Alaska.

Name.	1912	1913	1914	1915	1916
Douglas.....	\$484,798	\$473,901	\$495,432	\$499,750	\$595,181
Haines.....	343,205	360,894	374,373	314,705	328,807
Juneau and Thane.....	1,417,910	3,240,681	4,017,710	3,597,231	4,277,684
Ketchikan.....	1,454,783	1,250,878	1,548,228	1,190,888	1,535,808
Loring.....	142,307	120,621	126,655	100,682	150,643
Petersburg.....	383,379	341,170	346,556	242,976	435,992
Stikine.....	143,554	218,101	167,451	142,376	165,572
Skagway.....	709,529	869,799	860,561	471,388	428,274
Treadwell.....	890,453	1,024,027	1,002,372	1,002,931	1,332,308
Wrangell.....	526,727	419,761	355,558	369,446	518,880
All other places.....	3,302,479	1,975,739	2,450,736	2,507,038	3,556,123
Total.....	9,769,224	9,725,472	11,075,532	10,329,411	13,589,967

Value of merchandise shipped from the United States to southern Alaska from Yakutat to Unalaska and Dutch Harbor.

Abercrombie.....	\$36,293	Matanuska.....	\$5,013
Agnak.....	13,738	McCarthy.....	117,819
Aktan.....	45,334	McDougal.....	11,112
Alitka.....	46,778	Orea.....	82,610
Anchorage.....	2,609,703	Ouzinkie.....	2,094
Chignik.....	217,360	Pavlov.....	6,238
Chitina.....	167,362	Pirate Cove.....	26,490
Cold Bay.....	5,068	Point Graham.....	87,124
Cooks Inlet.....	59,727	Point Wells.....	21,480
Copper Center.....	3,314	Sanak.....	9,640
Cordova.....	1,923,001	Sand Point.....	17,039
Dutch Harbor.....	53,375	Seldovia.....	175,768
Ellamar.....	91,223	Seward.....	855,561
Fidalgo Bay.....	7,218	Shushana.....	20,599
Fort Lisicum.....	31,983	Strelina.....	12,465
Hope.....	15,362	Sunrise.....	5,835
Ilamna.....	3,390	Susitna.....	27,925
Karluk.....	47,951	Unalaska.....	61,424
Katala.....	88,782	Unga.....	64,927
Kenai.....	176,758	Uyak.....	53,325
Kennicott.....	412,088	Valdez.....	538,771
King Cove.....	114,909	Yakutat.....	135,344
Knik.....	164,563		
Kodiak.....	103,067		
Latouche.....	503,543		
		Total.....	9,283,730

Comparative statement of principal places in southern Alaska.

Name.	1912	1913	1914	1915	1916
Chignik.....	\$488,681	\$277,339	\$150,294	\$185,499	\$217,260
Chitina.....	106,740	109,553	130,273	95,267	167,362
Cordova.....	888,155	832,067	783,534	953,762	1,923,001
Ellamar.....	42,584	86,433	85,351	72,904	91,223
Karluk.....	173,151	130,763	77,823	62,974	47,951
Katala.....	71,412	47,961	24,062	35,740	35,732
Kodiak.....	129,596	111,489	125,841	92,438	108,067
Latouche.....	83,715	106,323	217,958	228,220	508,543
Orea.....	69,066	69,989	70,369	92,167	82,610
Seward.....	275,061	231,704	315,296	627,257	855,561
Uyak.....	87,958	104,019	60,362	74,062	53,325
Valdez.....	563,809	716,944	670,710	434,954	538,771
All other places.....	1,339,971	1,154,674	1,436,074	3,352,792	5,411,274
Total.....	4,321,689	3,979,178	4,089,705	6,313,086	9,283,730

Value of merchandise shipped from the United States to all places on Bering Sea and Arctic Ocean except St. Michael.

Akiak.....	\$33,273	Nome.....	\$1,049,245
Bethel.....	120,021	Nushagak.....	651,606
Bonanza.....	10,667	Oscarville.....	7,461
Bristol Bay.....	777,199	Port Helden.....	10,142
Candle.....	20,340	Port Moller.....	291,789
Council.....	46,719	Point Barrow.....	13,281
Deering.....	22,110	Pribilof Islands.....	36,517
Dickson.....	6,837	Quinhagak.....	9,680
Dillingham.....	3,111	Shinuk.....	1,471
Egegak.....	43,879	Solomon.....	13,288
Golovin.....	94,520	Tacotna.....	60,917
Herendeen Bay.....	74,694	Taylor.....	2,376
Igloo.....	2,393	Teller.....	26,666
Keewalik.....	2,790	Ugashik.....	2,976
Kiana.....	7,901	Unalakleet.....	11,580
Koglung.....	132,524	Wainwright.....	2,413
Kotzebue.....	27,405	Wales.....	1,272
Kvichak.....	107,734	Wood River.....	9,368
McGrath.....	17,610	York.....	5,147
Naknek.....	276,682		
Nelson Lagoon.....	69,935	Total.....	4,105,999

Comparative statement of principal places, Bering Sea and Arctic Ocean.

Name.	1912	1913	1914	1915	1916
Bristol Bay.....	\$1,820,829	\$1,774,890	\$1,227,787	\$1,455,634	\$777,199
Candle.....	68,346	70,925	46,799	37,802	20,340
Deering.....	90,891	66,967	37,445	29,713	22,110
Golovin.....	77,010	106,759	76,024	66,379	94,520
Kvichak.....	63,870	220,208			107,734
Nome.....	1,279,396	1,223,599	926,806	1,110,345	1,049,245
Teller and Port Clarence.....	65,677	41,232	60,803	55,269	26,666
All other places.....	702,715	692,940	1,141,317	1,188,440	2,008,195
Total.....	4,168,934	4,200,520	3,516,963	3,945,582	4,105,999

Value of merchandise shipped from the United States to St. Michael and the Yukon Basin.

Alatna.....	\$4,204	Koyukuk.....	\$6,907
Andreofsky.....	3,149	Long.....	19,561
Anvik.....	12,248	Louden.....	3,227
Beaver.....	3,965	Marshall.....	93,864
Bettles.....	96,262	Minto.....	3,330
Brooks.....	6,180	Mountain Village.....	1,867
Chatanika.....	16,829	Nanana.....	285,313
Chena.....	18,110	Nulato.....	13,588
Circle.....	49,337	Ophir.....	7,975
Dikeman.....	26,818	Old Hamilton.....	7,684
Eagle.....	43,971	Rampart.....	24,080
Esther.....	4,108	Ruby.....	370,469
Fairbanks.....	1,544,183	Russian Mission.....	9,487
Flat.....	27,390	Stevens Village.....	6,147
Fox.....	3,508	St. Michael.....	267,807
Fort Yukon.....	43,137	Tanana.....	220,112
Holikachuk.....	3,802	Terminal.....	15,273
Holy Cross.....	46,266	Tofty.....	4,374
Hot Springs.....	153,116	Tolovana.....	26,242
Hughes.....	6,814	Woodchopper.....	6,719
Iditarod.....	371,784	Yokokaket.....	2,678
Innoko.....	3,870		
Kaltag.....	3,522	Total.....	3,855,197

Comparative statement of principal places in Yukon district.

Name.	1912	1913	1914	1915	1916
Chena.....	\$159,217	\$101,788	\$14,964	\$4,817	\$18,110
Eagle.....	47,667	33,364	65,142	36,667	43,971
Fairbanks.....	1,391,026	1,280,506	1,304,556	1,108,802	1,544,183
Hot Springs.....	67,062	115,490	153,308	128,084	153,116
Iditarod.....	286,770	482,189	323,343	219,047	371,784
Ruby.....	301,444	299,750	196,262	208,776	370,469
St. Michael.....	999,968	854,373	837,492	840,245	257,807
Tanana.....	213,509	241,317	199,716	171,808	220,112
All other places.....	376,262	385,743	355,837	289,845	845,686
Total.....	3,732,914	3,784,520	2,978,640	2,704,089	3,855,197

Statement of number and tonnage of vessels entered and cleared for the years 1915 and 1916.

DOMESTIC TRADE.

Port.	1915				1916			
	Entered.		Cleared.		Entered.		Cleared.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Ketchikan.....	709	403,080	721	399,337	927	448,609	1,120	423,722
Wrangell.....	6	5,770	4	2,011	8	2,207	10	2,199
Juneau.....	17	31,898	14	23,666	31	29,590	26	26,643
Skagway.....	2	1,864	2	2,976	4	2,737	12	6,200
St. Michael.....	4	5,064	2	1,593	6	10,868	4	6,436
Nome.....	22	35,315	18	31,881	19	89,447	16	30,811
Unalaska.....	13	6,490	18	8,705	11	7,303	21	11,614
Cordova.....	11	16,876	24	36,980	28	43,982	46	77,626
Sulzer.....	8	5,967	14	8,264	17	12,174	25	23,528
Total.....	792	512,314	817	515,413	1,051	596,817	1,290	606,778

FOREIGN TRADE.

Ketchikan.....	499	210,654	475	194,692	742	321,125	418	283,130
Wrangell.....	35	1,564	36	4,515	39	1,450	37	1,879
Juneau.....	1	1,495	2	879	4	2,614	4	1,118
Skagway.....	1	448	.....	.....	.....	.....	15	12,553
Eagle.....	45	18,674	47	20,201	56	23,086	48	19,979
St. Michael.....	.....	.....	.....	.....	.....	.....	1	448
Nome.....	13	5,045	15	1,593	13	5,586	10	1,614
Unalaska.....	1	296	2	301	3	1,881	.....	.....
Cordova.....	.....	.....	.....	.....	3	1,723	.....	.....
Sulzer.....	7	81	8	441	6	84	6	79
Total.....	602	238,259	585	222,622	866	357,509	539	320,800

Recapitulation of customs business, by ports, for the year ended Dec. 31, 1916.

Port.	Vessels entered.		Vessels cleared.		Entries taken.	Vessels documented.	Total vessels entered.	Total vessels cleared.
	Foreign.	Coast-wise.	Foreign.	Coast-wise.				
Ketchikan.....	742	927	418	1,120	156	204	1,660	1,538
Wrangell.....	39	8	37	10	209	84	47	47
Juneau.....	4	31	4	36	226	174	35	40
Skagway.....	.....	4	15	12	868	2	4	27
Eagle.....	56	.....	48	.....	130	.....	56	48
St. Michael.....	.....	6	1	4	.....	.....	6	5
Nome.....	13	19	10	16	31	71	32	26
Unalaska.....	3	11	.....	21	3	20	14	21
Cordova.....	3	28	.....	46	2	7	31	46
Sulzer.....	6	17	6	25	.....	19	23	31
Fortymile.....	.....	.....	.....	.....	44	.....	.....	.....
Total.....	896	1,061	539	1,290	1,660	581	1,917	1,829

Comparative statement of customs business for the district, 1906-1916.

Years.	Vessels entered.		Vessels cleared.		Entries taken.	Vessels documented.	Total vessels entered.	Total vessels cleared.
	Foreign.	Coast-wise.	Foreign.	Coast-wise.				
1906.....	338	436	304	426	1,906	305	824	730
1907.....	341	445	305	426	1,636	378	796	729
1908.....	280	410	197	406	1,113	182	660	603
1909.....	318	418	262	414	1,104	176	736	676
1910.....	393	451	366	419	1,190	190	844	785
1911.....	367	514	331	495	1,200	276	661	826
1912.....	318	770	282	643	1,292	349	1,068	825
1913.....	366	812	327	770	1,318	590	1,177	1,060
1914.....	378	805	349	810	1,069	576	1,183	1,169
1915.....	602	798	585	817	1,129	587	1,394	1,402
1916.....	866	1,051	639	1,290	1,669	581	1,917	1,839

APPENDIX D.

Newspapers in Alaska.

Anchorage:	Kodiak:
Anchorage Times (daily and weekly).	Orphanage News Letter (monthly).
Anchorage Railroad Record (weekly).	Nenana:
Anchorage Democrat (weekly).	Nenana News (weekly).
Chitina:	Nome:
The Chitina Leader (weekly).	The Nome Daily Nugget.
Cordova:	Nome Industrial worker (daily).
The Alaska Times (daily and weekly).	The Eskimo (monthly).
Douglas:	Petersburg:
Douglas Island News (weekly).	The Report (weekly).
Fairbanks:	Ruby:
The Alaska Citizen (daily and weekly).	The Record-Citizen (weekly).
The Churchman (quarterly).	Seward:
The Fairbanks Daily News-Miner.	The Seward Gateway (daily).
Juneau:	The Alaska Weekly Post.
The Alaska Daily Empire.	Skagway:
Daily Alaska Dispatch.	The Daily Alaskan.
Alaska (monthly).	Sitka:
All-Alaska Review (monthly).	The Verstovian (monthly).
Ketchikan:	Unalakleet:
Ketchikan Progressive - Miner (daily and weekly).	Northern Light (monthly).
	Valdez:
	The Daily Prospector.
	The Valdez Miner.
	Wrangell:
	The Wrangell Sentinel (weekly).

APPENDIX E.

Incorporated Towns.

Name.	Date of incorporation.	Mayor.	Name.	Date of incorporation.	Mayor.
Chena.....	1904	Charles A. Showers.	Ketchikan.....	1906	M. J. Haneghan.
Cordova.....	1909	W. H. Chase.	Nome.....	1901	G. J. Lomen.
Douglas.....	1902	E. E. Smith.	Petersburg.....	1910	Jacob Otnes.
Eagle.....	1901	Charles Ott.	Seward.....	1912	Samuel McDonald.
Fairbanks.....	1903	Henry T. Ray.	Skagway.....	1908	Howard Ashley.
Haines.....	1910	Samuel Nixon.	Tanana.....	1912	B. B. Moose.
Iditarod.....	1911	Paul La Plant.	Valdez.....	1901	James H. Patterson.
Juneau.....	1900	Emery Valentine.	Wrangell.....	1903	F. Matheson.

APPENDIX F.

Laws Relating to Alaska Passed at the Second Session of the Sixty-fourth Congress and First Session of the Sixty-fifth Congress.

[EXCERPT FROM PRIVATE—No. 45—64TH CONGRESS.]

[S. 3929.]

AN ACT Validating certain applications for and entires of public lands.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the entries hereinafter named be, and the same are hereby, validated, and the Secretary of the Interior authorized to issue patents thereon upon the submission of satisfactory proof of compliance with the laws under which such entries were allowed:

* * * * *

Homestead application, Fairbanks, Alaska, numbered naught three hundred and ninety-two, filed by George Kolde, on February twenty-fourth, nineteen hundred and fifteen, for lot twelve, section ten, lots one and six, section fifteen, and the south half of the northwest quarter, section fourteen, township one south, range one west, Fairbanks meridian.

* * * * *

SEC. 5. That the homestead claim of John Kehoe for unsurveyed lands near Tanana, Alaska, for which he recorded a location notice August fifth, nineteen hundred and eight, be, and the same is hereby, validated.

Approved, June 28, 1916.

[PUBLIC—No. 308—64TH CONGRESS.]

[S. 7963.]

AN ACT To prohibit the manufacture or sale of alcoholic liquors in the Territory of Alaska, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That on and after the first day of January, anno Domini nineteen hundred and eighteen, it shall be unlawful for any person, house, association, firm, company, club, or corporation, his, its, or their agents, officers, clerks, or servants, to manufacture, sell, give, or otherwise dispose of any intoxicating liquor or alcohol of any kind in the Territory of Alaska, or to have in his or its possession or to transport any intoxicating liquor or alcohol in the Territory of Alaska unless the same was procured and is so possessed and transported as hereinafter provided.

Whenever the term "liquor," "intoxicating liquor," or "intoxicating liquors" is used in this act it shall be deemed to include whisky, brandy, rum, gin, wine, ale, porter, beer, cordials, hard or fermented cider, alcoholic bitters, ethyl alcohol, and all malt liquors, including all alcoholic compounds classed by the United States Internal Revenue Bureau as "compound liquors": *Provided*, That this act shall not apply to methyl or wood alcohol.

That any person or persons, or any house, company, association, club, or corporation, his, its, or their agents, officers, clerks, or servants, who shall, directly or indirectly, violate the provisions of this section shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined not more than \$1,000 or shall be imprisoned for a period of not more than one year, or by both such fine and imprisonment.

SEC. 2. That before a pharmacist shall be authorized to transport pure alcohol for scientific, artistic, or mechanical purposes or for compounding or preparing medicines, as provided by this act, he shall procure a permit for that purpose from the judge of the district court in the division where the applicant resides.

SEC. 3. That to procure such permit a pharmacist shall make and file with the clerk of the said district court a statement in writing, under oath, stating that he desires to transport pure alcohol for scientific, artistic, or mechanical purposes or for compounding, preparing, or preserving medicines only, as provided by this act, and giving his name, the location of his place of business, a statement that he is a licensed pharmacist, that he is regularly engaged in the prac-

tice of his profession at the location named, and that he will not violate the provisions of this act.

SEC. 4. That if the judge of the district court of any division in Alaska is satisfied of the good faith of the applicant he shall issue to such pharmacist a permit to transport pure alcohol for compounding, preparing, or preserving medicines or for scientific, artistic, or mechanical purposes. Such permit shall be substantially in the following form:

"Permit to pharmacists to transport pure alcohol for compounding, preparing, and preserving medicines only or for scientific, artistic, or mechanical purposes.

"District court, _____ division, Territory of Alaska, ss.

"_____, a pharmacist, residing at _____, is hereby permitted to transport pure alcohol for compounding, preparing, and preserving medicines only or for scientific, artistic, or mechanical purposes. This permit can only be used for one shipment and will be void after six months from the date of issue.

"By order of the district court aforesaid.

"Dated this _____ day of _____, nineteen hundred and _____.

"_____,
"Judge of the district court."

SEC. 5. That said permit mentioned in section four hereof shall be issued upon forms supplied by the clerk of the district court and shall contain the permit, a copy of the application for permit, and a copy of the provisions of section six of this act, and shall be issued under the seal of the said court and shall be void for transportation purposes after six months from the date of issuance. The clerk of said district court shall keep in a separate book provided for that purpose a record of permits issued under this act, wherein shall be entered the date and the number thereof, the person to whom issued, and the purpose for which issued.

SEC. 6. That said permit shall be attached to and remain affixed in a conspicuous place upon any package or parcel containing pure alcohol imported into or shipped in the Territory of Alaska, and when so affixed shall authorize any common carrier or any person operating a boat or vehicle for the transportation of goods, wares, or merchandise within the Territory of Alaska to transport, ship, or carry such pure alcohol. Any person so transporting such alcohol shall, before the delivery of such package or parcel, cancel said permit and so deface the same that it can not be used again.

SEC. 7. That all express companies, railroad companies, public or private carriers are hereby required to keep a separate book in which shall be entered, immediately upon receipt thereof, the name of the person to whom pure alcohol is shipped, from what city or town and State the same was shipped, and the name of the shipper, the amount and kind received, the date when received, the date when delivered, and to whom delivered, after which record there shall be a blank space in which the consignee shall be required to sign his own name, in ink, before such pure alcohol is delivered to such consignee, which book shall be open to the inspection of the public at any time during business hours of the company and shall not be removed from the place where the same is required to be kept. A copy of entries upon any such record herein provided to be kept, when certified to by the agent of any express or railroad company or any public or private carrier in charge of the same, shall constitute prima facie evidence of the facts therein stated in any court of the Territory.

It shall be unlawful for any person, house, association, firm, company, club, or corporation, his, its, or their agents, officers, clerks, or servants, to ship alcohol or intoxicating liquor to a false or fictitious name or person, or any person to receive or receipt for alcohol or intoxicating liquor in a false or fictitious name.

SEC. 8. That any common carrier or any person operating a boat or vehicle for the transportation of goods, wares, or merchandise may accept for transportation and may transport to any place within the Territory of Alaska shipments of wine for sacramental purposes when there is attached to such shipment a certificate in substantially the following form:

"I (or we) certify that this package contains only _____ (amount) of _____ (wine), which has been ordered by _____ who represents himself to be a duly authorized and officiating priest or minister of the _____ church at _____, and that said wine is desired for sacramental purposes only.

"_____,
(Signature of shipper.)

SEC. 9. That whenever a shipment of wines for sacramental purposes shall have been transported for delivery within the Territory of Alaska the delivering agent of the transportation company must refuse to deliver the same unless it is accompanied by the certificate prescribed in section eight of this act, and then only to the person to whom the same is addressed or upon his written order. The transportation company must keep a record of all shipments and deliveries of wines for sacramental purposes and must preserve for a period of one year after their receipt all certificates accompanying such shipments and all written orders upon which deliveries may be made. Such records must be open to the inspection of the public at any time during office hours.

SEC. 10. That any person who shall desire to purchase pure alcohol for scientific, artistic, or mechanical purposes shall apply to the district court aforesaid for a permit for that purpose. To procure such permit he shall make and file with the clerk of the district court a statement in writing, under oath, stating that he desires to purchase pure alcohol for scientific, artistic, or mechanical purposes as provided by this act, and giving his name and residence and the place at which such pure alcohol is to be used.

SEC. 11. That if the judge of said district court is satisfied of the good faith of the applicant he shall issue to said applicant a permit to purchase a reasonable amount of pure alcohol for scientific, artistic, or mechanical purposes. The original of said permit shall have attached thereto a duplicate copy, and each shall be numbered with the same number and be in substantially the following form:

"District Court, ——— Division, Territory of Alaska, ss.

"———, residing at ———, is hereby permitted to purchase pure alcohol in the amount of ——— (here insert quantity), to be used for scientific, artistic, or mechanical purposes. This permit can only be used for one purchase, and the copy thereof attached hereto shall be conspicuously pasted upon the package containing said alcohol, and this permit to purchase shall be void after ninety days from the date hereof.

"By order of the district court aforesaid.

"Dated this ——— day of ———, nineteen hundred and ———.

"———,

"Judge of the District Court."

SEC. 12. That the permit mentioned in section eleven shall authorize the applicant to purchase and any pharmacist to sell and deliver to him the quantity named in the said permit. The permit shall be canceled, kept, and retained on file for at least one year by the pharmacist so selling said pure alcohol, and the copy of said permit shall be, by the pharmacist, conspicuously pasted upon the receptacle containing said alcohol, and shall so remain upon said receptacle so long as the same shall contain alcohol. Said permit and copy shall only authorize one purchase and sale. It shall be unlawful for any pharmacist to sell pure alcohol without the permit herein specified, or for any person to keep or have in his possession any pure alcohol unless the receptacle containing the same shall be distinctly labeled with the copy of the permit authorizing the purchase of the same.

SEC. 13. That it shall be unlawful for any person owning, leasing, or occupying or in possession or control of any premises, building, vehicle, car, or boat to knowingly permit thereon or therein the manufacture, transportation, disposal, or the keeping of intoxicating liquor with intent to manufacture, transport, or dispose of the same in violation of the provisions of this act.

SEC. 14. That it shall be unlawful for any person to import, ship, sell, transport, deliver, receive, or have in his possession any intoxicating liquors, except as in this act provided.

SEC. 15. That any person who shall in or upon any passenger coach, street car, boat, or in or upon any other vehicle commonly used for the transportation of passengers, or in or about any depot, platform, or waiting room drink any intoxicating liquor of any kind, or any person who shall be drunk or intoxicated in any public or private road or street, or in any passenger coach, street car, or any public place or building, or at any public gathering, or any person who shall be drunk or intoxicated and shall disturb the peace of any person, shall be guilty of a misdemeanor.

SEC. 16. That every person who shall directly or indirectly keep or maintain by himself or by associating with others, or who shall in any manner aid, assist, or abet in keeping or maintaining any clubhouse, or other place in which alcoholic liquor is received or kept for the purpose of use, gift, barter, or sale,

or for distribution or division among the members of any club or association by any means whatsoever, or who shall maintain what is commonly known as the "locker system" or other device for evading the provisions of this act, and every person who shall use, barter, sell, give away, or assist or abet in bartering, selling, or giving away any liquors so received or kept, shall be deemed guilty of a misdemeanor and upon conviction thereof be subject to the penalties prescribed in section one of this act; and in all cases the members, shareholders, associates, or employees in any club or association mentioned in this section shall be competent witnesses to prove any violations of the provisions of this section of this act, or of any fact tending thereto; and no person shall be excused from testifying as to any offense committed by another against any of the provisions of this act by reason of his testimony tending to criminate himself, but the testimony given by such person shall in no case be used against him.

The keeping or giving away of alcoholic liquors, or any schemes or devices whatever, to evade the provisions of this act shall be deemed unlawful within the provisions of this act.

SEC. 17. That if one or more persons who are competent witnesses shall charge, on oath or affirmation, before the district attorney or any of his deputies duly authorized to act for him, presenting that any person, company, copartnership, association, club, or corporation has or have violated or is violating the provisions of this act by manufacturing, storing, or depositing, offering for sale, keeping for sale or use, trafficking in, bartering, exchanging for goods, giving away, or otherwise furnishing alcoholic liquor, shall request said district attorney or any of his assistants duly authorized to act for him to cause to be issued a warrant, said attorney or any of his assistants shall cause to be issued such warrant, in which warrant the room, house, building, or other place in which the violation is alleged to have occurred or is occurring shall be specifically described; and said warrant shall be placed in the hands of the marshal, his deputy, or any town marshal or policeman in any town in which the room, house, building, or other place above referred to is located, commanding him to at once thoroughly search said described room, house, building, or other place, and the appurtenances thereof; and if any such be found, to take into his possession and safely keep, to be produced as evidence when required, all alcoholic liquors and all the means of dispensing the same, also all the paraphernalia or part of the paraphernalia of a barroom or other alcoholic liquor establishment, and any United States internal-revenue tax receipt or certificate for the manufacture or sale of alcoholic liquor, effective for the period of time covering the alleged offense, and forthwith report all the facts to the district attorney or his deputy, and such alcoholic liquor or the means for dispensing same, or the paraphernalia of a barroom or other alcoholic liquor establishment, or any United States internal-revenue tax receipt or certificate for the sale of alcoholic liquor, effective as aforesaid, shall be prima facie evidence of the violation of the provisions of this act.

SEC. 18. That it shall not be necessary, in order to convict any person, company, house, association, copartnership, club, or corporation, his, its, or their agents, officers, clerks, or servants of manufacturing, importing, or selling alcoholic liquors, to prove the actual manufacture, importing, sale, delivery of, or payment for any alcoholic liquors, but the evidence of having or keeping them in hand, stored or deposited, taking orders for, or offering to sell or barter, or exchanging them for goods or merchandise, or giving them away, shall be sufficient to convict; nor shall it be necessary in a warrant, information, or indictment to specify the particular kind of alcoholic liquor which is made the subject of a charge of violation of this act.

SEC. 19. That all houses, boats, boathouses, buildings, clubrooms, and places of every description, including drug stores, where alcoholic liquors are manufactured, stored, sold, or vended, given away, or furnished contrary to law, including those in which clubs, orders, or associations sell, barter, give away, distribute, or dispense intoxicating liquors to their members by any means or device whatever, as provided in this act, shall be held, taken, and deemed common and public nuisances. And any person who shall maintain, or shall aid or abet, or knowingly be associated with others, in maintaining such common and public nuisance, shall be guilty of a misdemeanor and upon conviction thereof shall be subject to the penalties prescribed in section one of this act, and judgment shall be given that such house, boat, building, or other place, or any room therein, be abated or closed up as a place for the sale or keeping of such liquor contrary to law, as the court may determine.

SEC. 20. That any United States district attorney for the Territory of Alaska may maintain an action in equity in the name of the United States to abate and perpetually enjoin such a nuisance as defined in the preceding section. No bond shall be required. Any person violating the terms of any injunction granted in such proceedings shall be punished for contempt by a fine of not more than \$500 or by imprisonment in the Federal jail for not more than six months, or both such fine and imprisonment, in the discretion of the court.

SEC. 21. That if a tenant of a building or tenement is convicted of using such premises or any part thereof or maintaining a common nuisance, as hereinbefore defined, or of knowingly permitting such use by another, the conviction of such use shall render void the lease under which he holds and shall cause the right of possession to revert to the owner or lessor, who may, without process of law, make immediate entry upon the premises, or may avail himself of the remedy provided for the forcible detention thereof.

SEC. 22. That anyone who knowingly permits any building owned or leased by him or under his control, or any part thereof, to be used in maintaining a common nuisance hereinbefore described in section nineteen of this act, neglects to take all reasonable measures to eject therefrom the person so using the same, shall be deemed guilty of assisting in maintaining such nuisance.

SEC. 23. That no property right of any kind shall exist in alcoholic liquors or beverages illegally manufactured, received, possessed, or stored under this act, and in all such cases the liquors are forfeited to the United States and may be searched for and seized and ordered to be destroyed by the court after a conviction, when such liquors have been seized for use as evidence, or upon satisfactory evidence to the court presented by the district attorney that such liquors are contraband.

SEC. 24. That any person convicted of a violation of any of the provisions of this act where the punishment therefor is not herein specifically provided shall be punished as provided by section one of this act.

SEC. 25. That in case a pharmacist is convicted under the provisions of this act the judge of the district court, in addition to the penalty provided in this act, may, in his discretion, revoke his license to practice pharmacy, and thereafter he shall not receive a license for one year.

SEC. 26. That the issuance by the United States of any internal revenue special tax stamp or receipt to any person as a dealer in intoxicating liquors shall be prima facie evidence of the sale of intoxicating liquors by such person during the time the stamp or receipt is in force and effect.

A copy of such stamp or receipt or of the record of the issuance thereof, certified to by a United States internal-revenue officer having charge of such record, is admissible as evidence in like case and with like effect as the original stamp or receipt.

SEC. 27. That it shall be the duty of the governor of Alaska, the United States marshals and their deputies, mayors, and members of town councils, town marshals, and police officers of all incorporated towns in Alaska, all Federal game wardens, agents of the Bureau of Fisheries and Forestry Service, customs collectors and their deputies, employees of the Bureau of Education, prosecuting attorneys and their deputies, and all other Federal and Territorial executive officers to enforce the provisions of this act.

SEC. 28. That prosecutions for violations of the provisions of this act shall be on information filed by any such officer before any justice of the peace or district judge, or upon indictment by any grand jury of the Territory of Alaska, and said United States district attorney or his deputy shall file such information upon the presentation to him or his assistants of sworn information that the law has been violated; and in such prosecutions anyone making a false oath to any material fact shall be deemed guilty of perjury.

SEC. 29. That any person, company, or corporation who shall import or carry liquors into or upon the Territorial waters of Alaska in or upon any steamship, steamboat, vessel, boat, or other water craft, or shall permit the same to be so imported or carried into or upon said waters, except under the provisions of this act, shall be guilty of a misdemeanor, and upon conviction shall be punished as provided in section one of this act.

SEC. 30. That in addition to the power now exercised the judges of the district courts of Alaska may grant liquor licenses for any period of time less than one year upon a pro rata of the license fee for one year, but not to extend beyond the first day of January, nineteen hundred and eighteen, under the provisions of law now in force there so far as the same are applicable.

SEC. 31. That the Legislature of the Territory of Alaska may pass additional legislation in aid of the enforcement of this act not inconsistent with its provisions.

SEC. 32. That in the interpretation of this act words of the singular number shall be deemed to include their plurals, and words of the masculine gender shall be deemed to include the feminine, as the case may be.

SEC. 33. That this act shall be in full force and effect on and after the first day of January, nineteen hundred and eighteen, and all laws and parts of laws inconsistent herewith be, and they are hereby, repealed as of that date.

Approved, February 14, 1917.

[PUBLIC—No. 353—64TH CONGRESS.]

[S. 5716.]

AN ACT To establish the Mount McKinley National Park, in the Territory of Alaska.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the tract of land in the Territory of Alaska particularly described by and included within the metes and bounds, to wit: Beginning at a point as shown on Plate III, reconnaissance map of the Mount McKinley region, Alaska, prepared in the Geological Survey, edition of nineteen hundred and eleven, said point being at the summit of a hill between two forks of the headwaters of the Toklat River, approximate latitude sixty-three degrees forty-seven minutes, longitude one hundred and fifty degrees twenty minutes; thence south six degrees twenty minutes west nineteen miles; thence south sixty-eight degrees west sixty miles; thence in a southeasterly direction approximately twenty-eight miles to the summit of Mount Russell; thence in a northeasterly direction approximately eighty-nine miles to a point twenty-five miles due south of a point due east of the point of beginning; thence due north twenty-five miles to said point; thence due west twenty-eight and one-half miles to the point of beginning, is hereby reserved and withdrawn from settlement, occupancy, or disposal under the laws of the United States, and said tract is dedicated and set apart as a public park for the benefit and enjoyment of the people, under the name of the Mount McKinley National Park.

SEC. 2. That nothing herein contained shall affect any valid existing claim, location, or entry under the land laws of the United States, whether for homestead, mineral, right of way, or any other purpose whatsoever, or shall affect the rights of any such claimant, locator, or entryman to the full use and enjoyment of his land.

SEC. 3. That whenever consistent with the primary purposes of the park, the act of February fifteenth, nineteen hundred and one, applicable to the location of rights of way in certain national parks and national forests for irrigation and for other purposes, shall be and remain applicable to the lands included within the park.

SEC. 4. Nothing in this act shall in any way modify or effect the mineral land laws now applicable to the lands in the said park.

SEC. 5. That the said park shall be under the executive control of the Secretary of the Interior, and it shall be the duty of the said executive authority, as soon as practicable, to make and publish such rules and regulations not inconsistent with the laws of the United States as the said authority may deem necessary or proper for the care, protection, management, and improvement of the same, the said regulations being primarily aimed at the freest use of the said park for recreation purposes by the public and for the preservation of animals, birds, and fish and for the preservation of the natural curiosities and scenic beauties thereof.

SEC. 6. That the said park shall be, and is hereby, established as a game refuge, and no person shall kill any game in said park except under an order from the Secretary of the Interior for the protection of persons or to protect or prevent the extermination of other animals or birds: *Provided*, That prospectors and miners engaged in prospecting or mining in said park may take and kill therein so much game or birds as may be needed for their actual necessities when short of food; but in no case shall animals or birds be killed in said park for sale or removal therefrom, or wantonly.

SEC. 7. That the said Secretary of the Interior may, in his discretion, execute leases to parcels of ground not exceeding twenty acres in extent for periods not to exceed twenty years whenever such ground is necessary for the erection

of establishments for the accommodation of visitors; may grant such other necessary privileges and concessions as he deems wise for the accommodation of visitors; and may likewise arrange for the removal of such mature or dead or down timber as he may deem necessary and advisable for the protection and improvement of the park: *Provided*, That no appropriation for the maintenance of said park in excess of \$10,000 annually shall be made unless the same shall have first been expressly authorized by law.

SEC. 8. That any person found guilty of violating any of the provisions of this act shall be deemed guilty of a misdemeanor, and shall be subjected to a fine of not more than \$500 or imprisonment not exceeding six months, or both, and be adjudged to pay all costs of the proceedings.

Approved, February 26, 1917.

[PUBLIC—No. 385—64TH CONGRESS.]

[S. 8317.]

AN ACT To authorize the Legislature of Alaska to establish and maintain schools, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Legislature of Alaska is hereby empowered to establish and maintain schools for white and colored children and children of mixed blood who lead a civilized life in said Territory and to make appropriations of Territorial funds for that purpose; and all laws or parts of laws in conflict with this act are to that extent repealed.

Approved, March 3, 1917.

[EXCERPT FROM PUBLIC—No. 377—64TH CONGRESS.]

[H. R. 20573.]

AN ACT To provide increased revenue to defray the expenses of the increased appropriations for the Army and Navy and the extensions of fortifications, and for other purposes.

TITLE IV.—MISCELLANEOUS.

SEC. 400. That the Secretary of the Treasury is hereby authorized to borrow on the credit of the United States from time to time such sums as in his judgment may be required to meet public expenditures on account of the Mexican situation, the construction of the armor-plate plant, the construction of the Alaskan Railway, and the purchase of the Danish West Indies, or to reimburse the Treasury for such expenditures, and to prepare and issue therefor bonds of the United States not exceeding in the aggregate \$100,000,000, in such form as he may prescribe, bearing interest payable quarterly at a rate not exceeding three per centum per annum; and such bonds shall be payable, principal and interest, in United States gold coin of the present standard of value, and both principal and interest shall be exempt from all taxes or duties of the United States as well as from taxation in any form by or under State, municipal, or local authority, and shall not be receivable by the Treasurer of the United States as security for the issue of circulating notes to national banks: *Provided*, That such bonds may be disposed of by the Secretary of the Treasury at not less than par, under such regulations as he may prescribe, giving all citizens of the United States an equal opportunity therefor, but no commissions shall be allowed or paid thereon; and a sum not exceeding one-tenth of one per centum of the amount of the bonds herein authorized is hereby appropriated, out of any money in the Treasury not otherwise appropriated, to pay the expenses of preparing, advertising, and issuing the same: *And provided further*, That in addition to such issue of bonds, the Secretary of the Treasury may prepare and issue for the purposes specified in this section any portion of the bonds of the United States now available for issue under authority of section thirty-nine of the act entitled "An act to provide revenue, equalize duties, and encourage the industries of the United States, and for other purposes," approved August fifth, nineteen hundred and nine: *And provided further*, That the issue of bonds under authority of this act and any Panama Canal bonds hereafter issued under authority of section thirty-nine of the act entitled "An act to provide revenue, equalize duties, and encourage the industries of

the United States, and for other purposes," approved August fifth, nineteen hundred and nine, shall be made redeemable and payable at such times within fifty years after the date of their issue as the Secretary of the Treasury, in his discretion, may deem advisable.

Approved, March 8, 1917.

[PUBLIC—No. 22—65TH CONGRESS.]

[S. 995.]

AN ACT To authorize the issue to States and Territories and the District of Columbia of rifles and other property for the equipment of organizations of home guards.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of War during this existing emergency be, and he is hereby, authorized, in his discretion, to issue from time to time to the several States and Territories and the District of Columbia for the equipment of such home guards having the character of State police or constabulary as may be organized by the several States and Territories and District of Columbia, and such other home guards as may be organized under the direction of the governors of the several States and Territories and the Commissioners of the District of Columbia or other State troops or militia, such rifles and ammunition therefor, cartridge belts, haversacks, canteens, in limited amounts as available supplies will permit, provided that the property so issued shall remain the property of the United States and shall be receipted for by the governors of the several States and Territories and Commissioners of the District of Columbia and accounted for by them under such regulations and upon furnishing such bonds or security as the Secretary of War may prescribe, and that any property so issued shall be returned to the United States on demand when no longer needed for the purposes for which issued, or if, in the judgment of the Secretary of War, an exigency requires the use of the property for Federal purposes: *Provided*, That all home guards, State troops, and militia receiving arms and equipments as herein provided shall have the use, in the discretion of the Secretary of War and under such regulations as he may prescribe, of rifle ranges owned or controlled by the United States of America.

Approved, June 14, 1917.

APPENDIX G.

Government Publications on Alaska.

This statement has been prepared in order to give information to the public regarding Government work in and publications on Alaska. There have been included lists of the principal publications of the Interior Department and brief notes regarding the publications of other departments. Publications on early explorations and on topics not referred to may often be obtained by purchase from the Superintendent of Documents, Government Printing Office, Washington, D. C. A circular giving general information regarding the Territory may be obtained from the Secretary of the Interior.

Correspondence should in all cases be addressed to the office or officer mentioned.

PUBLIC LANDS.

Circulars regarding the manner of obtaining title to public lands may be obtained from the Commissioner of the General Land Office, Washington, D. C., to whom all correspondence relating to public lands should be addressed.

FISHERIES.

Publications on the fish industry may be obtained from the Bureau of Fisheries, Washington, D. C., which will forward a list of publications free of charge.

AGRICULTURAL AND STOCK RAISING.

Publications on agricultural experiments and development and on stock raising are issued by the Department of Agriculture, and information concerning same may be obtained by addressing the Secretary of Agriculture, Washington, D. C.

NAVIGATION.

Charts of the navigable waters, Coast Pilots, and Tide Tables may be purchased from the Coast and Geodetic Survey, Washington, D. C. (catalogue free); papers on astronomical and magnetic work, coast-pilot notes, etc., are published by the Coast and Geodetic Survey, Washington, D. C., and are furnished gratis on application. A list of such publications will be forwarded free of charge.

ROADS AND TRAILS.

Roads and trails are being constructed by the Alaska Road Commission, which is under the supervision of the Secretary of War. Information regarding the progress of this work is contained in the reports of the Secretary of War, which may be consulted at the principal libraries.

NATIVE ARTS AND LANGUAGES.

Studies of arts and languages have been made from time to time by the National Museum and the Bureau of American Ethnology, Washington, D. C., to which communications on these subjects should be addressed.

POST-ROUTE MAP.

A map 33½ by 48½ inches on a scale of 40 miles to the inch, showing the post offices and mail routes in Alaska, may be obtained from the Post Office Department, Washington, D. C., for 80 cents. Remittance should be by money order, payable to the Third Assistant Postmaster General, Post Office Department, Washington, D. C. Postage stamps can not be accepted.

GOVERNMENT RAILROAD.

The first report of the Alaskan Engineering Commission, which is constructing the Government railroad in Alaska, has been issued as House Document No. 610, Sixty-fourth Congress, first session. This report includes an account of operations from March 12, 1914, to December 31, 1915. The report may be purchased from the Superintendent of Documents, Government Printing Office, Washington, D. C., for 75 cents; it may also be obtained from Senators and Representatives until their limited quota is exhausted.

EDUCATION AND REINDEER SERVICE.

The schools for the education of natives, their medical relief, and the reindeer industry are under the supervision of the Commissioner of Education, to whom communications relating to these subjects should be addressed.

The governor of Alaska is ex officio superintendent of schools for the education of white children.

The following reports on schools for natives and on the reindeer service have been issued by the Bureau of Education. An asterisk (*) indicates that the Bureau of Education's stock of the paper is exhausted. These papers can generally be consulted at the principal libraries throughout the country. If a price is given, these publications may be purchased for that amount from the Superintendent of Documents, Government Printing Office. In the case of the reports on native schools the price is for the complete volume, as the Superintendent of Documents has no separates for sale.

NATIVE SCHOOLS.

- *1886. Report on education in Alaska, by Sheldon Jackson, 80 pp.
- 1889. In Annual Report for 1889, vol. 2, pp. 753-764. Cloth, 75 cents.
- 1890. In Annual Report for 1890, vol. 2, pp. 1245-1300. Cloth, 90 cents.
- *1891. In Annual Report for 1891, vol. 2, pp. 925-960. Cloth, 75 cents.
- 1892. In Annual Report for 1892, vol. 2 pp. 873-892. Cloth, 60 cents.
- *1893. In Annual Report for 1893, vol. 2, pp. 1705-1748. Cloth, 70 cents.
- *1894. In Annual Report for 1894, vol. 2, pp. 1451-1492. Cloth, 90 cents.
- *1895. In Annual Report for 1895, vol. 2, pp. 1425-1455. Cloth, 85 cents.
- *1896. In Annual Report for 1896, vol. 2, pp. 1435-1468. Cloth, 90 cents.
- *1897. In Annual Report for 1897, vol. 2, pp. 1601-1646. Cloth, 80 cents.
- *1898. In Annual Report for 1898, vol. 2, pp. 1753-1771. Cloth, 90 cents.

- 1899. In Annual Report for 1899, vol. 2, pp. 1372-1402. Cloth, 90 cents.
- 1900. In Annual Report for 1900, vol. 2, pp. 1733-1785. Cloth, 95 cents.
- 1901. In Annual Report for 1901, vol. 2, pp. 1459-1480. Cloth, 85 cents.
- 1902. In Annual Report for 1902, vol. 2, pp. 1229-1256. Cloth, 90 cents.
- 1903. In Annual Report for 1903, vol. 2, pp. 2333-2364. Cloth, 85 cents.
- 1904. In Annual Report for 1904, vol. 2, pp. 2257-2263. Cloth, \$1.25.
- *1905. In Annual Report for 1905, vol. 1, pp. 267-282. Cloth, 75 cents.
- *1906. In Annual Report for 1906, vol. 1, pp. 237-250. Cloth, 75 cents.
- *1907. In Annual Report for 1907, vol. 1, pp. 371-396. Cloth, 60 cents.
- *1908. In Annual Report for 1908, vol. 2, pp. 1023-1046. Cloth, 75 cents.
- *1909. In Annual Report for 1909, vol. 2, pp. 1297-1320. Cloth, 65 cents.
- *1910. In Annual Report for 1910, vol. 2, pp. 1343-1363. Cloth, 65 cents.
- *1911. In Annual Report for 1911, vol. 2, pp. 1379-1395. Cloth, 65 cents.
- *1912. In Annual Report for 1912, vol. 1, pp. 407-415.
- 1913. In Annual Report for 1913, vol. 1, pp. 632-640.
- *1914. In Annual Report for 1914, vol. 1, pp. 633-639. Cloth, 65 cents.
- 1915. In Annual Report for 1915, vol. 1, pp. 635-639.
- 1916. In Annual Report for 1916, vol. 1, pp. 487-490.

REINDEER SERVICE.

- *1893. Senate Misc. Document No. 22, 52d Cong., 2d sess. Sheep, \$2.
- 1894. Senate Document No. 92, 53d Cong., 3d sess. Cloth, 25 cents.
- *1895. Senate Document No. 111, 54th Cong., 1st sess. Cloth, 35 cents.
- *1896. Senate Document No. 49, 54th Cong., 2d sess. Cloth, 35 cents.
- *1897. Senate Document No. 30, 55th Cong., 2d sess. Cloth, 20 cents.
- *1898. Senate Document No. 34, 55th Cong., 2d sess. Cloth, 40 cents.
- *1899. Senate Document No. 245, 56th Cong., 2d sess. Cloth, 40 cents.
- *1900. Senate Document No. 206, 56th Cong., 2d sess. Cloth, 40 cents.
- *1901. Senate Document No. 98, 57th Cong., 1st sess. Cloth, 50 cents.
- *1902. Senate Document No. 70, 57th Cong., 2d sess. Cloth, 40 cents.
- *1903. Senate Document No. 210, 58th Cong., 2d sess. Cloth, 50 cents.
- 1904. Senate Document No. 61, 58th Cong., 2d sess. Cloth, 50 cents.
- *1905. Senate Document No. 499, 59th Cong., 1st sess. Cloth, 60 cents.
- *1906. In Annual Report of the Commissioner of Education for 1906, vol. 1, pp. 237-255. Paper, 15 cents.
- *1907. In Annual Report of the Commissioner of Education for 1907, vol. 1, pp. 371-411. Cloth, 60 cents.
- *1908. In Annual Report of the Commissioner of Education for 1908, vol. 2, pp. 1046-1056. Cloth, 75 cents.
- *1909. In Annual Report of the Commissioner of Education for 1909, vol. 2, pp. 1321-1326. Cloth, 65 cents.
- *1910. In Annual Report of the Commissioner of Education for 1910, vol. 2, pp. 1364-1370. Cloth, 65 cents.
- *1911. In Annual Report of the Commissioner of Education for 1911, vol. 2, pp. 1395-1402. Cloth, 65 cents.
- *1912. In Annual Report of the Commissioner of Education for 1912, vol. 1, pp. 415-420.
- 1913. In Annual Report of the Commissioner of Education for 1913, vol. 1, pp. 641, 642.

ALASKA SCHOOL AND REINDEER SERVICE.

- *1912. Bulletin of the Bureau of Education, 1912, No. 36. Paper, 10 cents.
- *1913. Bulletin of the Bureau of Education, 1914, No. 31. Paper, 25 cents.
- 1914. Bulletin of the Bureau of Education, 1915, No. 48. Paper.
- *1915. Bulletin of the Bureau of Education, 1916, No. 47. Paper.

GEOLOGY, MINERAL RESOURCES, WATER RESOURCES, AND MAPS.

Publications on the geology, mineral resources, and water resources, and maps of portions of Alaska are issued by the Geological Survey. In the following list, arranged geographically, are given the titles of some of the recent publications of the Geological Survey.

All of these publications can be obtained or consulted in the following ways:

1. A limited number are printed for the Geological Survey, Washington, D. C., from which they can be obtained, free of charge (except certain maps), on application.

2. A certain number are delivered to Senators and Representatives in Congress for distribution.

3. Other copies are deposited with the superintendent of documents, Washington, D. C., from whom they can be had at prices slightly above cost.

4. Copies of all Government publications are furnished to the principal public libraries throughout the United States, where they can be consulted by those interested.

An asterisk (*) indicates that the Geological Survey's stock of the paper is exhausted. If a price is given, the document can be had for that amount from the Superintendent of Documents, Government Printing Office, Washington, D. C.

A complete list can be had on application to the Director of the Geological Survey.

GENERAL.

REPORTS.

- * The geography and geology of Alaska, a summary of existing knowledge, by A. H. Brooks, with a section on climate, by Cleveland Abbe, jr., and a topographic map and description thereof, by R. U. Goode. Professional Paper 45, 1906, 327 pp. \$1.
- Placer mining in Alaska in 1904, by A. H. Brooks. In Bulletin 250, 1905, pp. 18-31.
- The mining industry in 1905, by A. H. Brooks. In Bulletin 284, 1906, pp. 4-9.
- *The mining industry in 1906, by A. H. Brooks. In Bulletin 314, 1907, pp. 19-39. 30 cents.
- *The mining industry in 1907, by A. H. Brooks. In Bulletin 345, 1908, pp. 30-53. 45 cents.
- *The mining industry in 1908, by A. H. Brooks. In Bulletin 379, 1909, pp. 21-62. 50 cents.
- The mining industry in 1909, by A. H. Brooks. In Bulletin 442, 1910, pp. 20-46.
- The mining industry in 1910, by A. H. Brooks. In Bulletin 480, 1911, pp. 21-42.
- *The mining industry in 1911, by A. H. Brooks. In Bulletin 520, 1912, pp. 19-44. 50 cents.
- The mining industry in 1912, by A. H. Brooks. In Bulletin 542, 1913, pp. 18-51.
- The Alaskan mining industry in 1913, by A. H. Brooks. In Bulletin 592, 1914, pp. 45-74.
- The Alaskan mining industry in 1914, by A. H. Brooks. In Bulletin 622, 1915, pp. 15-68.
- The Alaskan mining industry in 1915, by A. H. Brooks. In Bulletin 642, 1916, pp. 17-71.
- The Alaskan mining industry in 1916, by A. H. Brooks. In Bulletin 662, 1917, pp. 1-62.
- *Railway routes, by A. H. Brooks. In Bulletin 284, 1906, pp. 10-17.
- *Railway routes from the Pacific seaboard to Fairbanks, Alaska, by A. H. Brooks. In Bulletin 520, 1912, pp. 45-88.
- *Geologic features of Alaskan metalliferous lodes, by A. H. Brooks. In Bulletin 480, 1911, pp. 43-93.
- *The mineral deposits of Alaska, by A. H. Brooks. In Bulletin 592, 1914, pp. 18-44.
- *The future of gold-placer mining in Alaska, by A. H. Brooks. In Bulletin 622, 1915, pp. 69-79.
- *Tin resources of Alaska, by F. L. Hess. In Bulletin 520, 1912, pp. 89-92. 50 cents.
- The petroleum fields of the Pacific coast of Alaska, with an account of the Bering River coal deposits, by G. C. Martin. Bulletin 250, 1905, 64 pp.
- Alaska coal and its utilization, by A. H. Brooks. Bulletin 442J, reprinted 1914.
- *The possible use of peat fuel in Alaska, by C. A. Davis. In Bulletin 379, 1909, pp. 63-66. 50 cents.
- The preparation and use of peat as a fuel, by C. A. Davis. In Bulletin 442, 1910, pp. 101-132.
- *Methods and costs of gravel and placer mining in Alaska, by C. W. Purington. Bulletin 263, 1905, 362 pp. (Abstract in Bulletin 259, 1905, pp. 32-46. 15 cents.)

- *Prospecting and mining gold placers in Alaska, by J. P. Hutchins. In Bulletin 345, 1908, pp. 54-77. 45 cents.
- *Geographic dictionary of Alaska, by Marcus Baker; second edition prepared by James McCormick. Bulletin 209, 1906, 690 pp. 50 cents.
- Antimony deposits of Alaska, by A. H. Brooks. Bulletin 649, 1916, 67 pp.
- Alaska's mineral supplies, by A. H. Brooks. Bulletin 606P, pp. 1-14.

In preparation.

- The Mesozoic stratigraphy of Alaska, by G. C. Martin.
- The mineral springs of Alaska, by G. A. Waring. Water-Supply Paper 418.
- The tungsten lodes of Alaska, by J. B. Mertie, Jr.

MAPS.

- *Map of Alaska showing contours; scale 1:2,500,000; 1906, by R. U. Goode and E. C. Barnard. In *Professional Paper 45. \$1. Not issued separately.
- Map of Alaska; scale 1:5,000,000; 1912, by A. H. Brooks. 20 cents.
- Map of Alaska; scale 1:1,500,000; 1915, by A. H. Brooks and R. H. Sargent. 80 cents.
- Map of Alaska showing distribution of mineral deposits; scale, 1:5,000,000; by A. H. Brooks. 20 cents. Also included in *Bulletin 520. 50 cents. (New edition included in Bulletin 642.)
- Index map of Alaska, including list of publications; scale 1:5,000,000; by A. H. Brooks. Free.
- Map of Alaska, scale 1:12,000,000; 1916, by A. H. Brooks. 1 cent.

SOUTHEASTERN ALASKA.

REPORTS.

- *The Porcupine placer district, Alaska, by C. W. Wright. Bulletin 236, 1904, 35 pp. 15 cents.
- Economic developments in southeastern Alaska, by F. E. and C. W. Wright. In Bulletin 259, 1905, pp. 47-68.
- *The Juneau gold belt, Alaska, by A. C. Spencer, pp. 1-137, and A reconnaissance of Admiralty Island, Alaska, by C. W. Wright, pp. 138-154. Bulletin 287, 1906, 161 pp. 75 cents.
- Lode mining in southeastern Alaska, by F. E. and C. W. Wright. In Bulletin 284, 1906, pp. 80-83.
- Nonmetallic deposits of southeastern Alaska, by C. W. Wright. In Bulletin 284, 1906, pp. 54-60.
- *Lode mining in southeastern Alaska, by C. W. Wright. In Bulletin 314, 1907, pp. 47-72. 30 cents.
- *Nonmetalliferous mineral resources of southeastern Alaska, by C. W. Wright. In Bulletin 314, 1907, pp. 73-81. 30 cents.
- *Reconnaissance on the Pacific coast from Yakutat to Alsek River, by Eliot Blackwelder. In Bulletin 314, 1907, pp. 82-88. 30 cents.
- *Lode mining in southeastern Alaska, 1907, by C. W. Wright. In Bulletin 345, 1908, pp. 78-97. 45 cents.
- *The building stones and materials of southeastern Alaska, by C. W. Wright. In Bulletin 345, 1908, pp. 116-126. 45 cents.
- *The Ketchikan and Wrangell mining districts, Alaska, by F. E. and C. W. Wright. Bulletin 347, 1908, 210 pp. 60 cents.
- *The Yakutat Bay region, Alaska: Physiography and glacial geology, by R. S. Tarr; Areal geology, by R. S. Tarr and B. S. Butler. Professional Paper 64, 1909, 186 pp. 50 cents.
- *Mining in southeastern Alaska, by C. W. Wright. In Bulletin 379, 1909, pp. 67-86. 50 cents.
- Mining in southeastern Alaska, by Adolph Knopf. In Bulletin 442, 1910, pp. 133-143.
- Occurrence of iron ore near Haines, by Adolph Knopf. In Bulletin 442, 1910, pp. 144-146.
- Report of water-power reconnaissance in southeastern Alaska, by J. C. Hoyt. In Bulletin 442, 1910, pp. 147-157.
- Geology of the Berners Bay region, Alaska, by Adolph Knopf. Bulletin 446, 1911, 58 pp.

- Mining in southeastern Alaska, by Adolph Knopf. In Bulletin 480, 1911, pp. 94-102.
- The Eagle River region, by Adolph Knopf. In Bulletin 480, 1911, pp. 103-111.
- The Eagle River region, southeastern Alaska, by Adolph Knopf. Bulletin 502, 1912, 61 pp.
- The Sitka mining district, Alaska, by Adolph Knopf. Bulletin 504, 1912, 32 pp.
- The earthquakes at Yakutat Bay, Alaska, in September, 1899, by R. S. Turr and Lawrence Martin, with a preface by G. K. Gilbert. Professional Paper 69, 1912, 135 pp.
- Marble resources of Ketchikan and Wrangell districts, by E. F. Burchard. In Bulletin 542, 1913, pp. 52-77.
- Marble resources of the Juneau, Skagway, and Sitka districts, by E. F. Burchard. In Bulletin 592, 1914, pp. 95-107.
- A barite deposit near Wrangell, by E. F. Burchard. In Bulletin 592, 1914, pp. 109-117.
- Lode mining in the Ketchikan district, by P. S. Smith. In Bulletin 592, 1914, pp. 75-94.
- The geology and ore deposits of Copper Mountain and Kasaan Peninsula, Alaska, by C. W. Wright. Professional Paper 87, 1915, 110 pp.
- Mining in the Juneau region [1914], by H. M. Eakin. In Bulletin 622, 1915, pp. 85-102.
- Notes on the Geology of Gravina Island, Alaska, by P. S. Smith. In Professional Paper 95, 1916, pp. 97-105.
- Mining developments in southeastern Alaska [1915], by Theodore Chapin. In Bulletin 642, 1916, pp. 73-104.
- Water-power investigations in southeastern Alaska, by G. H. Canfield. In Bulletin 642, 1915, pp. 105-128.
- Mining development in Ketchikan and Wrangell districts [1916], by Theodore Chapin. In Bulletin 662, 1917, pp. —.
- Lode mining in the Juneau gold belt [1916], by H. M. Eakin. In Bulletin 662, 1917, pp. —.
- Gold placer mining, Porcupine district [1916], by H. M. Eakin. In Bulletin 662, 1917, pp. —.
- Water-power investigations in southeastern Alaska [1916], by G. H. Canfield. In Bulletin 662, 1917, pp. —.

In preparation.

- Geology of the Glacier Bay and Lituya region, by F. E. and C. W. Wright.
- The structure and stratigraphy of Gravina and Revilla giedo islands, Alaska, by Theodore Chapin. In Professional Paper 120.
- The Porcupine district, Alaska, by H. M. Eakin.
- Marble resources of southeastern Alaska, by E. F. Burchard.
- The Ketchikan district, Alaska, by Theodore Chapin.

TOPOGRAPHIC MAPS.

- *Juneau gold belt, Alaska; scale, 1:250,000; compiled. In *Bulletin 287. 75 cents. Not issued separately.
- Juneau special (No. 581A); scale, 1:62,500; by W. J. Peters. 10 cents each, or \$3 for 50.
- Berners Bay special (No. 581B); scale, 1:62,500; by R. B. Oliver. 10 cents each, or \$3 for 50.
- Kasaan Peninsula, Prince of Wales Island (No. 540A); scale, 1:62,500; by D. C. Witherspoon, R. H. Sargent, and J. W. Bagley. 10 cents each, or \$3 for 50.
- Copper Mountain and vicinity, Prince of Wales Island (No. 540B); scale, 1:62,500; by R. H. Sargent. 10 cents each, or \$3 for 50.
- Eagle River region (No. 581C); scale, 1:62,500; by J. W. Bagley, C. E. Giffin, and R. E. Johnson. In Bulletin 502. Not issued separately.

In preparation.

- Juneau special; scale, 1:24,000; by D. C. Witherspoon.

CONTROLLER BAY, PRINCE WILLIAM SOUND, AND COPPER RIVER REGIONS.

REPORTS.

- *The petroleum fields of the Pacific coast of Alaska, with an account of the Bering River coal deposits, by G. C. Martin. Bulletin 250, 1905, 64 pp. 15 cents.

- *Geology of the central Copper River region, Alaska, by W. C. Mendenhall. Professional Paper 41, 1905, 133 pp. 50 cents.
- *Geology and mineral resources of Controller Bay region, Alaska, by G. C. Martin. Bulletin 335, 1908, 141 pp. 70 cents.
- *Notes on copper prospects of Prince William Sound, by F. H. Moffit. In Bulletin 345, 1908, pp. 176-178. 45 cents.
- Mineral resources of the Kotsina-Chitina region, by F. H. Moffit and A. G. Maddren. Bulletin 374, 1909, 103 pp.
- *Copper mining and prospecting on Prince William Sound, by U. S. Grant and D. F. Higgins, jr. In Bulletin 379, 1909, pp. 87-96. 50 cents.
- *Gold on Prince William Sound, by U. S. Grant. In Bulletin 379, 1909, p. 97. 50 cents.
- *Mining in the Kotsina-Chitina, Chistochina, and Valdez Creek regions, by F. H. Moffit. In Bulletin 379, 1909, pp. 159-160. 50 cents.
- Mineral resources of the Nabesna-White River district, by F. H. Moffit and Adolph Knopf; with a section on the quaternary, by S. R. Capps. Bulletin 417, 1910, 64 pp.
- Mining in the Chitina district, by F. H. Moffit. In Bulletin 442, 1910, pp. 158-163.
- Mining and prospecting on Prince William Sound in 1909, by U. S. Grant. In Bulletin 442, 1910, pp. 164-165.
- Reconnaissance of the geology and mineral resources of Prince William Sound, Alaska, by U. S. Grant and D. F. Higgins. Bulletin 443, 1910, 89 pp.
- Geology and mineral resources of the Nizina district, Alaska, by F. H. Moffit and S. R. Capps. Bulletin 448, 1911, 111 pp.
- Headwater regions of Gulkana and Susitna Rivers, Alaska, with accounts of the Valdez Creek and Chistochina placer districts, by F. H. Moffit. Bulletin 498, 1912, 82 pp.
- *The Chitina district, by F. H. Moffit. In Bulletin 520, 1912, pp. 105-107. 50 cents.
- *Gold deposits near Valdez, by A. H. Brooks. In Bulletin 520, 1912, pp. 108-130. 50 cents.
- Coastal glaciers of Prince William Sound and Kenai Peninsula, Alaska, by U. S. Grant and D. F. Higgins. Bulletin 526, 1913, 75 pp.
- The McKinley Lake district, by Theodore Chapin. In Bulletin 542, 1913, pp. 78-80.
- Mining in Chitina Valley, by F. H. Moffit. In Bulletin 542, pp. 81-85.
- Mineral deposits of the Ellamar district, by S. R. Capps and B. L. Johnson. In Bulletin 542, 1913, pp. 86-124.
- The mineral deposits of the Yakataga region, by A. G. Maddren. In Bulletin 592, 1914, pp. 119-154.
- Preliminary report on water power of south-central Alaska, by C. E. Ellsworth and Royal W. Davenport. In Bulletin 592, 1914, pp. 155-194.
- The Port Wells gold-lode district, by B. L. Johnson. In Bulletin 592, 1914, pp. 195-236.
- Mining on Prince William Sound, by B. L. Johnson. In Bulletin 592, 1914, pp. 237-244.
- Geology of the Hanagita-Bremner region, by F. H. Moffit. Bulletin 576, 1915, 56 pp.
- The geology and mineral resources of Kenai Peninsula, by G. C. Martin, B. L. Johnson, and U. S. Grant. Bulletin 587, 1915, 243 pp.
- Mineral deposits of the Kotsina-Kuskulana district, with notes on mining in Chitina Valley, by F. H. Moffit. In Bulletin 622, 1915, pp. 103-117.
- Mining on Prince William Sound (1914), by B. L. Johnson. In Bulletin 622, 1915, pp. 131-139.
- The gold and copper deposits of the Port Valdez district, by B. L. Johnson. In Bulletin 622, 1915, pp. 140-148.
- The Ellamar district, by S. R. Capps and B. L. Johnson. Bulletin 605, 1915, 125 pp.
- A water-power reconnaissance in south-central Alaska, by C. E. Ellsworth and R. W. Davenport. Water-Supply Paper, 872, 1915, 173 pp.
- Mineral resources of the upper Chitina Valley, by F. H. Moffit. In Bulletin 642, 1916, pp. 129-136.
- Mining on Prince William Sound [1915], by B. L. Johnson. In Bulletin 642, 1916, pp. 137-145.
- Retreat of Barry Glacier, Port Wells, Prince William Sound, Alaska, between 1910 and 1914, by B. L. Johnson. In Professional Paper 98, 1916, pp. 35 and 36.

- Mining in the lower Copper River Basin, 1916, by F. H. Moffit. In Bulletin 662, 1917, pp. 155-182.
- Mining on Prince William Sound, 1916, by B. L. Johnson. In Bulletin 662, 1917, pp. 183-192.
- Copper deposits of the Latouche and Knight Island districts, Prince William Sound, by B. L. Johnson. In Bulletin 662, 1917, pp. 193-220.

In preparation.

- The Kotsina-Kuskulana district, by F. H. Moffit.
- The upper Chitina Valley, by F. H. Moffit. Bulletin 675.
- The Valdez district, Prince William Sound, Alaska, by B. L. Johnson.
- The Latouche and Knight Island districts, Prince William Sound, Alaska, by B. L. Johnson.
- The Jack Bay district, Prince William Sound, Alaska, by B. L. Johnson.
- The Yakataga region, by A. G. Maddren.

TOPOGRAPHIC MAPS.

- *Central Copper River region; reconnaissance map; scale, 1:250,000; by T. G. Gerdine. In Professional Paper 41. 50 cents. Not issued separately.
- *Headwater regions of Copper, Nabesna, and Chisana rivers; reconnaissance map; scale, 1:250,000; by D. C. Witherspoon, T. G. Gerdine, and W. J. Peters. In Professional Paper 41. 50 cents. Not issued separately.
- Controller Bay region; scale, 1:62,500; by E. G. Hamilton and W. R. Hill. 35 cents. No wholesale rates.
- Chitina quadrangle; reconnaissance map; scale, 1:250,000; by T. G. Gerdine, D. C. Witherspoon, and others. In Bulletin 576.
- Nizina district; scale, 1:62,500; by D. C. Witherspoon and R. M. La Follette. In Bulletin 448. Not issued separately.
- Headwater region of Gulkana and Susitna rivers; scale, 1:250,000; by D. C. Witherspoon, J. W. Bagley, and C. E. Giffin. In Bulletin 498. Not issued separately.
- Prince William Sound; scale, 1:500,000; compiled. In Bulletin 528. Not issued separately.
- Port Valdez district; scale, 1:62,500; by J. W. Bagley. Price, 20 cents.
- The Bering River coal fields; scale, 1:62,500; by G. C. Martin. Price, 25 cents.
- The Ellamar district; scale, 1:62,500; by R. H. Sargent and C. E. Giffin. Published in Bulletin 605. Not issued separately.
- The Kotsina-Kuskulana district; scale, 1:62,500; by D. C. Witherspoon.

In preparation.

- Jack Bay district; scale, 1:62,500; by J. W. Bagley.
- Upper Chitina Valley; scale, 1:250,000; by F. H. Moffit.
- The Port Wells region; scale, 1:250,000; by J. W. Bagley.

COOK INLET AND SUSITNA REGION.

REPORTS.

- *The petroleum fields of the Pacific coast of Alaska, with an account of the Bering River coal deposits, by G. C. Martin. Bulletin 250, 1905, 64 pp. 15 cents.
- Gold placers of Turnagain Arm, Cook Inlet, by F. H. Moffit. In Bulletin 259, 1905, pp. 90-99.
- *Mineral resources of the Kenai Peninsula, Alaska, by F. H. Moffit and R. W. Stone. Bulletin 277, 1906, 80 pp.
- *Geologic reconnaissance in the Matanuska and Talkeetna basins, Alaska, by Sidney Paige and Adolph Knopf. Bulletin 327, 1907, 71 pp. 25 cents.
- Gold placers of the Mulchatna, by F. J. Katz. In Bulletin 442, 1910, pp. 201-202.
- The Mount McKinley region, Alaska, by A. H. Brooks, with descriptions of the igneous rocks and of the Bonfield and Kantishna districts, by L. M. Prindle. Professional Paper 70, 1911, 234 pp.
- A geologic reconnaissance of the Illamna region, Alaska, by G. C. Martin and F. J. Katz. Bulletin 485, 1912, 138 pp.

- Geology and coal fields of the lower Matanuska Valley, Alaska, by G. C. Martin and F. J. Katz. Bulletin 500, 1912, 98 pp.
- The Yentna district, Alaska, by S. R. Capps. Bulletin 584, 1918, 75 pp.
- Gold lodes and placers of the Willow Creek district, by S. R. Capps. In Bulletin 592, 1914, pp. 245-272.
- Mineral resources of the upper Matanuska and Nelchina Valleys, by G. C. Martin and J. B. Mertie, jr. In Bulletin 592, 1914, pp. 273-300.
- Preliminary report on the Broad Pass region, by F. H. Moffit. In Bulletin 592, 1914, pp. 301-306.
- Mining in the Valdez Creek placer district, by F. H. Moffit. In Bulletin 592, 1914, pp. 307-308.
- The geology and mineral resources of Kenai Peninsula, Alaska, by G. C. Martin, B. L. Johnson, and U. S. Grant. Bulletin 587, 1915, 248 pp.
- The Willow Creek district, by S. R. Capps. Bulletin 607, 1915, 86 pp.
- The Broad Pass region, by F. H. Moffit and J. E. Pogue. Bulletin 608, 1915, 80 pp.
- Auriferous gravels of the Nelchina-Susitna region, by Theodore Chapin. In Bulletin 622, 1915, pp. 118-130.
- The Turnagain-Knik region, by S. R. Capps. In Bulletin 642, 1916, pp. 147-194.
- Gold mining in Willow Creek district [1915], by S. R. Capps. In Bulletin 642, 1916, pp. 195-200.
- The Nelchina-Susitna region, by Theodore Chapin. Bulletin 668, 1917.

In preparation.

The geology of upper Matanuska Basin, by G. C. Martin.

TOPOGRAPHIC MAPS.

- Kenai Peninsula, southern portion; scale, 1:500,000; compiled. In Bulletin 526. Not issued separately.
- *Matanuska and Talkeetna region, reconnaissance map; scale, 1:250,000; by T. G. Gerdine and R. R. H. Sargent. In Bulletin 327. 25 cents. Not issued separately.
- Lower Matanuska Valley; scale, 1:62,500; by R. H. Sargent. In Bulletin 500. Not issued separately.
- Yentna district, reconnaissance map; scale, 1:250,000; by R. W. Porter. Revised edition. In Bulletin 534. Not issued separately.
- Mount McKinley region, reconnaissance map; scale, 1:625,000; by D. L. Reaburn. In Professional Paper 70. Not issued separately.
- Kenai Peninsula, reconnaissance map; scale, 1:250,000; by R. H. Sargent, J. W. Bagley, and others. In Bulletin 587. Not issued separately.
- Moose Pass and vicinity; scale, 1:62,500; by J. W. Bagley. In Bulletin 587. Not issued separately.
- The Willow Creek district; scale, 1:62,500; by C. E. Giffin. In Bulletin 607. Not issued separately.
- The Broad Pass region; scale, 1:250,000; by J. W. Bagley. In Bulletin 608. Not issued separately.
- Nelchina-Susitna region; scale, 1:250,000; by J. W. Bagley. In Bulletin 668. Not issued separately.
- The Matanuska Valley; scale, 1:62,500; by R. H. Sargent.

SOUTHWESTERN ALASKA.

REPORTS.

- *A reconnaissance in southwestern Alaska, by J. E. Spurr. In Twentieth Annual Report, pt. 7, 1900, pp. 31-264. \$1.80.
- Gold mine on Unalaska Island, by A. J. Collier. In Bulletin 259, 1905, pp. 102-103.
- *The petroleum fields of the Pacific coast of Alaska, with an account of the Bering River coal deposits, by G. C. Martin. Bulletin 250, 1905 64 pp. 15 cents.
- Geology and mineral resources of parts of Alaska Peninsula, by W. W. Atwood. Bulletin 467, 1911, 137 pp.
- A geologic reconnaissance of the Iliamna region, Alaska, by G. C. Martin and F. J. Katz. Bulletin 485, 1912, 188 pp.
- Mineral deposits of Kodiak and the neighboring islands, by G. C. Martin. In Bulletin 542, 1913, pp. 125-136.
- Lake Clark-central Kuskokwim region, by P. S. Smith. Bulletin 663.

TOPOGRAPHIC MAPS.

- Herendeen Bay and Unga Island region, reconnaissance map; scale, 1:250,000; by H. M. Eakin. In Bulletin 467. Not issued separately.
- Chignik Bay region, reconnaissance map; scale, 1:250,000; by H. M. Eakin. In Bulletin 467. Not issued separately.
- Iliamna region, reconnaissance map; scale, 1:250,000; by D. C. Witherspoon and C. E. Giffin. In Bulletin 485. Not issued separately.
- *Kuskokwim River and Bristol Bay region; scale, 1:625,000; by W. S. Post. In Twentieth Annual Report, pt. 7. \$1.80. Not issued separately.

In preparation.

Lake Clark-central Kuskokwim region; scale, 1:250,000; by R. H. Sargent.

YUKON AND KUSKOKWIM BASINS.

REPORTS.

- *The coal resources of the Yukon, Alaska, by A. J. Collier. Bulletin 218, 1903, 71 pp. 15 cents.
- *Occurrence of gold in the Yukon-Tanana region, by L. M. Prindle. In Bulletin 345, 1908, pp. 179-186. 45 cents.
- The Fortymile quadrangle, Yukon-Tanana region, Alaska, by L. M. Prindle. Bulletin 375, 1909, 52 pp.
- Water-supply investigations in Yukon-Tanana region, Alaska, 1907-8 (Fairbanks, Circle, and Rampart districts), by C. C. Covert and C. E. Ellsworth. Water-Supply Paper 228, 1909, 108 pp.
- The Innoko gold placer district, Alaska, with accounts of the Central Kuskokwim Valley and the Ruby Creek and Gold Hill placers, by A. G. Maddren. Bulletin 410, 1910, 87 pp.
- Mineral resources of Nabesna-White River district, by F. H. Moffit and Adolph Knopf, with a section on the Quaternary, by S. R. Capps. Bulletin 417, 1910, 64 pp.
- Placer mining in the Yukon-Tanana region, by C. E. Ellsworth. In Bulletin 442, 1910, pp. 230-245.
- Occurrence of wolframite and cassiterite in the gold placers of Deadwood Creek, Birch Creek district, by B. L. Johnson. In Bulletin 442, 1910, pp. 246-250.
- Placer mining in the Yukon-Tanana region, by C. E. Ellsworth and G. L. Parker. In Bulletin 480, 1911, pp. 153-172.
- Gold placer mining developments in the Innoko-Iditarod region, by A. G. Maddren. In Bulletin 480, 1911, pp. 236-270.
- *Placer mining in the Fortymile and Seventymile river districts, by E. A. Porter. In Bulletin 520, 1912, pp. 211-218. 50 cents.
- *Placer mining in the Fairbanks and Circle districts, by C. E. Ellsworth. In Bulletin 520, 1912, pp. 240-245. 50 cents.
- *Gold placers between Woodchopper and Fourth of July Creeks, upper Yukon River, by L. M. Prindle and J. B. Mertie, jr. In Bulletin 520, 1912, pp. 201-210. 50 cents.
- The Bonfield region, Alaska, by S. R. Capps. Bulletin 501, 1912, 162 pp.
- A geologic reconnaissance of a part of the Rampart quadrangle, Alaska, by H. M. Eakin. Bulletin 535, 1913, 38 pp.
- A geologic reconnaissance of the Fairbanks quadrangle, Alaska, by L. M. Prindle, with a detailed description of the Fairbanks district, by L. M. Prindle and F. J. Katz, and an account of lode mining near Fairbanks, by P. S. Smith. Bulletin 525, 1913, 220 pp.
- The Koyukuk-Chandalar region, Alaska, by A. G. Maddren. Bulletin 532, 1913, 119 pp. Price, 25 cents.
- A geologic reconnaissance of the Circle quadrangle, Alaska, by L. M. Prindle. Bulletin 538, 1913, 82 pp.
- Placer mining in the Yukon-Tanana region, by C. E. Ellsworth and R. W. Davenport. In Bulletin 542, 1913, pp. 203-222.
- The Chisana placer district, by A. H. Brooks. In Bulletin 592, 1914, pp. 309-320.
- Placer mining in the Yukon-Tanana region, by Theodore Chapin. In Bulletin 592, 1914, pp. 357-362.

- Lode developments near Fairbanks, by Theodore Chapin. In Bulletin 592, 1914, pp. 321-355.
- Mineral resources of the Yukon-Koyukuk region, by H. M. Eakin. In Bulletin 592, 1914, pp. 371-384.
- The Iditarod-Ruby region, Alaska, by H. M. Eakin. Bulletin 578, 1914, 45 pp.
- Surface water supply of the Yukon-Tanana region, 1907 to 1912, by C. E. Ellsworth and R. W. Davenport. Water-Supply Paper 342, 1915, 343 pp.
- Mineral resources of the Chisana-White River district, by S. R. Capps. In Bulletin 622, 1915, pp. 189-228.
- Mining in the Fairbanks district, by H. M. Eakin. In Bulletin 622, 1915, pp. 229-238.
- Mining in the Hot Springs district, by H. M. Eakin. In Bulletin 622, 1915, pp. 239-245.
- Mineral resources of the Lake Clark-Iditarod region, by P. S. Smith. In Bulletin 622, 1915, pp. 247-271.
- Quicksilver deposits of the Kuskokwim region, by P. S. Smith and A. G. Maddren. In Bulletin 622, 1915, pp. 272-291.
- Gold placers of the lower Kuskokwim, by A. G. Maddren. In Bulletin 622, 1915, pp. 292-360.
- An ancient volcanic eruption in the upper Yukon basin, by S. R. Capps. In Professional Paper 95, 1916, pp. 59-64.
- Preliminary report on Tolovana district, by A. H. Brooks. In Bulletin 642, 1916, pp. 201-209.
- Exploration in the Cosna-Nowitna region, by H. M. Eakin. In Bulletin 642, 1916, pp. 211-222.
- Mineral resources of the Ruby-Kuskokwim region by J. B. Mertie, jr., and G. L. Harrington. In Bulletin 642, 1916, pp. 223-263.
- The Chisana-White River district, by S. R. Capps. Bulletin 630, 1916, 130 pp.
- The Yukon-Koyukuk region, by H. M. Eakin. Bulletin 631, 1916, 85 pp.
- The gold placers of the Tolovana district, by J. B. Mertie, jr. In Bulletin 662, 1917, pp. 221-277.
- Mineral resources of the Kautishna region, Alaska, by S. R. Capps. In Bulletin 662, 1917, pp. —.
- Gold placers of the Anvik-Andreafski region, Alaska, by George L. Harrington. In Bulletin 662, 1917, pp. —.
- Gold placers near the Nenana coal field, by A. G. Maddren. In Bulletin 662, 1917, pp. —.
- Lode deposits near the Nenana coal field, by R. M. Overbeck. In Bulletin 662, 1917, pp. —.
- Lodes of the Fairbanks district, by J. B. Mertie, jr. In Bulletin 662, 1917, pp. 403-424.

In preparation.

- The Lake Clark-central Kuskokwim region, by P. S. Smith. Bulletin 655.
- The Ruby-Kuskokwim region, by J. B. Mertie, jr., and G. L. Harrington.
- The lower Kuskokwim region, by A. G. Maddren.
- The Cosna-Nowitna region, by H. M. Eakin. Bulletin 667.

- The Kautishna region, Alaska, by S. R. Capps.
- The Anvik-Andreafski region, Alaska, by G. L. Harrington.
- Gold lodes of the Fairbanks district, Alaska, by J. B. Mertie, jr.
- The Nenana coal field, by G. C. Martin.
- Geologic results of a trip to White Mountains, Alaska, by Elliot Blackwelder.

TOPOGRAPHIC MAPS.

- Circle quadrangle (No. 641); scale, 1:250,000; by T. G. Gerdine, D. C. Witherspoon, and others. 50 cents each, or \$15 for 50. Also in Bulletin 295.
- Fairbanks quadrangle (No. 642); scale, 1:250,000; by T. C. Gerdine, D. C. Witherspoon, R. B. Oliver, and J. W. Bagley. 50 cents each, or \$15 for 50. Also in Bulletins *337 (25 cents) and 525.
- Fortymile quadrangle (No. 640); scale, 1:250,000; by E. C. Barnard. 10 cents each, or \$3 for 50. Also in Bulletin 375.
- Rampart quadrangle (No. 643); scale, 1:250,000; by D. C. Witherspoon and R. B. Oliver. 20 cents each, or \$6 for 50. Also in Bulletin 337 and part in Bulletin 535.
- Fairbanks special (No. 642A); scale, 1:62,500; by T. G. Gerdine and R. H. Sargent. 20 cents each, or \$6 for 50. Also in Bulletin 525.

Bonnifield region; scale, 1:250,000; by J. W. Bagley, D. C. Witherspoon, and C. E. Giffin. In Bulletin 501. Not issued separately.
 Iditarod-Ruby region, reconnaissance map; scale, 1:250,000; by C. G. Anderson, W. S. Post, and others. In Bulletin 578. Not issued separately.
 Middle Kuskokwim and lower Yukon region; scale, 1:500,000; by C. G. Anderson, W. S. Post, and others. In Bulletin 578. Not issued separately.
 Yukon-Koyukuk region; scale, 1:500,000; by H. M. Eakin. In Bulletin 631. Not issued separately.

In preparation.

Lake Clark-central Kuskokwim region; scale, 1:250,000; by R. H. Sargent.
 Lower Kuskokwim region; scale, 1:500,000; by A. G. Maddren.
 Cosna-Nowitna region; scale, 1:250,000; by H. M. Eakin.
 Ruby-Kuskokwim region; scale, 1:250,000; by R. H. Sargent and C. E. Giffin.
 Lower Yukon River; scale, 1:250,000; by R. H. Sargent.
 The Kautishna region; scale, 1:250,000; by C. E. Giffin.

SEWARD PENINSULA.

REPORTS.

- The Fairhaven gold placers of Seward Peninsula, Alaska, by F. H. Moffit. Bulletin 247, 1905, 85 pp.
 Gold mining on Seward Peninsula, by F. H. Moffit. In Bulletin 284, 1906, pp. 132-141.
 *The Kougarok region, by A. H. Brooks. In Bulletin 314, 1907, pp. 164-181. 15 cents.
 *Geology and mineral resources of Iron Creek, by P. S. Smith. In Bulletin 314, 1907, pp. 157-163. 15 cents.
 The gold placers of parts of Seward Peninsula, Alaska, including the Nome, Council, Kougarok, Port Clarence, and Goodhope precincts, by A. J. Collier, F. L. Hess, P. S. Smith, and A. H. Brooks. Bulletin 328, 1908, 343 pp.
 *Investigation of the mineral deposits of Seward Peninsula, by P. S. Smith. In Bulletin 345, 1908, pp. 206-250. 45 cents.
 Geology of the Seward Peninsula tin deposits, by Adolph Knopf. Bulletin 358, 1908, 72 pp.
 *Recent developments in southern Seward Peninsula, by P. S. Smith. In Bulletin 379, 1909, pp. 267-301. 50 cents.
 *The Iron Creek region, by P. S. Smith. In Bulletin 379, 1909, pp. 302-354. 50 cents.
 *Mining in the Fairhaven district, by F. F. Henshaw. In Bulletin 379, 1909, pp. 355-369. 50 cents.
 Geology and mineral resources of the Solomon and Casadepaga quadrangles, Seward Peninsula, Alaska, by P. S. Smith. Bulletin 433, 1910, 227 pp.
 Mining in Seward Peninsula, by F. F. Henshaw. In Bulletin 442, 1910, pp. 353-371.
 A geologic reconnaissance in southeastern Seward Peninsula and the Norton Bay-Nulato region, by P. S. Smith and H. M. Eakin. Bulletin 449, 1911, 146 pp.
 *Notes on mining in Seward Peninsula, by P. S. Smith. In Bulletin 520, 1912, pp. 339-344. 50 cents.
 Geology of the Nome and Grand Central quadrangles, Alaska, by F. H. Moffit. Bulletin 533, 1913, 140 pp.
 *Surface water supply of Seward Peninsula, Alaska, by F. F. Henshaw and G. L. Parker, with a sketch of the geography and geology by P. S. Smith, and a description of methods of placer mining, by A. H. Brooks; including topographic reconnaissance map. Water-Supply Paper 314, 1913, 317 pp. 45 cents.
 Placer mining on Seward Peninsula, by Theodore Chapin. In Bulletin 592, 1914, pp. 385-396.
 Lode developments on Seward Peninsula, by Theodore Chapin. In Bulletin 592, 1914, pp. 397-407.
 Iron-ore deposits near Nome, by H. M. Eakin. In Bulletin 622, 1915, pp. 361-365.
 Placer mining in Seward Peninsula, by H. M. Eakin. In Bulletin 622, 1915, pp. 366-373.
 Placer mining on Seward Peninsula, 1916, by J. B. Mertie, jr. In Bulletin 662, 1917, pp. —.
 Lode mining and prospecting on Seward Peninsula, 1916, by J. B. Mertie, jr. In Bulletin 662, 1917, pp. —.

TOPOGRAPHIC MAPS.

- Seward Peninsula, compiled from work of D. C. Witherspoon, T. G. Gerdine, and others, of the Geological Survey, and all available sources; scale, 1: 500,000. In Water-Supply Paper 314. Not issued separately.
- Seward Peninsula, northeastern portion, reconnaissance map (No. 655); scale, 1: 250,000; by D. C. Witherspoon and C. E. Hill. 50 cents each, or \$30 a hundred. Also in Bulletin 247.
- Seward Peninsula, northwestern portion, reconnaissance map (No. 657); scale, 1: 250,000; by T. G. Gerdine and D. C. Witherspoon. 50 cents each, or \$30 a hundred. Also in Bulletin 328.
- Seward Peninsula, southern portion, reconnaissance map (No. 656); scale, 1: 250,000; by C. E. Barnard, T. G. Gerdine, and others. 50 cents each, or \$30 a hundred. Also in Bulletin 328.
- Seward Peninsula, southeastern portion, reconnaissance map (Nos. 655-656); scale, 1: 250,000; by E. C. Barnard, D. L. Reaburn, H. M. Eakin, and others. In Bulletin 449. Not issued separately.
- Nulato-Norton Bay region; scale, 1: 500,000; by P. S. Smith, H. M. Eakin, and others. In Bulletin 449. Not issued separately.
- Grand Central quadrangle (No. 646A); scale, 1: 62,500; by T. G. Gerdine, R. B. Oliver, and W. R. Hill. 10 cents each, or \$3 for 50. Also in Bulletin 533.
- Nome quadrangle (No. 646B); scale, 1: 62,500; by T. G. Gerdine, R. B. Oliver, and W. R. Hill. 10 cents each, or \$3 for 50. Also in Bulletin 533.
- Casadebaga quadrangle (No. 646C); scale, 1: 62,500; by T. G. Gerdine, W. B. Corse, and B. A. Yoder. 10 cents each, or \$3 for 50. Also in Bulletin 433.
- Solomon quadrangle (No. 646D); scale, 1: 62,500; by T. G. Gerdine, W. B. Corse, and B. A. Yoder. 10 cents each, or \$3 for 50. Also in Bulletin 433.

NORTHERN ALASKA.

REPORTS.

- *A reconnaissance in northern Alaska across the Rocky Mountains, along Koyukuk, John, Anaktuvuk, and Colville Rivers and the Arctic coast to Cape Lisburne in 1901, by F. C. Schrader, with notes by W. J. Peters. Professional Paper 20, 1904, 139 pp. 40 cents.
- *Geology and coal resources of the Cape Lisburne region, Alaska, by A. J. Collier. Bulletin 278, 1906, 54 pp. 15 cents.
- *Geologic investigations along the Canada-Alaska boundary, by A. G. Maddren. In Bulletin 520, 1912, pp. 297-314. 50 cents.
- The Noatak-Kobuk region, by P. S. Smith. Bulletin 536, 1913, 160 pp.
- The Koyukuk-Chandalar region, Alaska, by A. G. Maddren. Bulletin 532, 1913, 119 pp.

In preparation.

- The Canning River region of northern Alaska, by E. de K. Leffingwell. Professional Paper 109.
- The geology of the Alaska-Canada boundary region, by A. G. Maddren.

TOPOGRAPHIC MAPS.

- *Koyukuk River to mouth of Colville River, including John River; scale, 1: 1,250,000; by W. J. Peters. In *Professional Paper 20. 40 cents. Not issued separately.
- Koyukuk and Chandalar region, reconnaissance map; scale, 1: 500,000; by T. G. Gerdine, D. L. Reaburn, D. C. Witherspoon, and A. G. Maddren. In Bulletin 532. Not issued separately.
- Noatak-Kobuk region; scale, 1: 500,000; by C. E. Giffin, D. L. Reaburn, H. M. Eakin, and others. In Bulletin 536. Not issued separately.

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REPORT OF THE GOVERNOR OF HAWAII.

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REPORT OF THE GOVERNOR OF HAWAII.

EXECUTIVE CHAMBER,
Honolulu, Hawaii, August 31, 1917.

SIR: I have the honor to submit the following report for the fiscal year ending June 30, 1917.

WAR CONDITIONS.

From the position of the Territory of Hawaii, in normal times as the largest military outpost of the United States, there is a notable adjustment of conditions.

NATIONAL GUARD OF HAWAII.

In accord with the views of the commanders of the Hawaiian Department obtaining before the United States contemplated sharing in the European war, the National Guard of Hawaii was brought in numbers and plan of organization to about the maximum obtainable under voluntary service. The organization was brought to a minimum legal limit of a regiment each on the three outside islands, Hawaii, Maui, and Kauai, officered in due form. On Oahu a regiment of relatively maximum numbers and other detached units were organized.

Thus provision was made to police every island, relieving the United States Regular Army of that duty, and also prepared to intercept any landing enemy until the Navy could get into action.

The orders requiring a maximum number of men to each regiment compelled the National Guard of Hawaii to be cut down to two regiments with auxiliary units. Thus the guard will number about 4,700 men, against 5,500 as previously organized.

Private local capital undertook to have their interests take precedence over the Army requirements, but will be compelled to give way.

GENERAL CONDITIONS.

Our agricultural products remain practically as heretofore. The importation of foodstuffs for human consumption was \$10,419,371, an increase of \$2,606,012, made up of provisions, \$381,065; breadstuffs, \$1,303,628; vegetables, \$216,980; sundry articles, \$704,339. War prices and depleted stocks account for these increases.

Sugar exported for the year totaled 581,318 tons, valued at \$62,743,372, and pineapples were valued at \$8,933,056, or a total for these two products of \$71,676,428, against a value last year of \$63,299,290.

The Territory has enjoyed unusual prosperity. It is to be hoped there will be no friction between laborers and the plantations, as a bonus system exists that aims at a just participation.

The assessable property of the Territory totals \$231,920,919 as of January 1, 1917, as against \$206,970,229 as of January 1, 1916, an increase of \$24,950,690. It is well to understand that valuations vary according to the prosperity of business corporations, as assessments are made on them as "enterprises for profit."

The total commercial-bank deposits as of December 31, 1916, were \$22,486,524.31, and savings-bank deposits as of June 30, 1917, \$10,205,496.70, both aggregating \$32,692,021.01, as against \$26,379,249.68, showing an increase of \$6,312,771.33.

The bonded debt of the Territory decreased \$150,000 during the year and now stands at \$7,874,000.

The legal limit of Territorial indebtedness is \$16,234,464.

Repatriation, at their request, of incapacitated and dependent assisted immigrants solely occupied the board of immigration for the year.

There were deported 108 persons—32 men, 30 women, and 46 children.

I am convinced comment on the various problems of population and races, public lands, education, birth rate and increase, business control, commerce, and food supply is unnecessary and possibly confusing when the very clear and graphic charts following this preface furnish a complete comprehensive analysis and review.

VARIOUS PROBLEMS IN CHART FORM.

The charts accompanying this report are self-explanatory and clearly define problems and conditions with which the administration must cope.

ELECTIONS.

The only political bodies which hold elections are the Territory, the city and county of Honolulu (which includes the island of Oahu), and the three counties of Maui, Hawaii, and Kauai. The Territorial elections are held in November of each even year, or biennially, and the only officers who are elected are half of the members of the senate, who are elected for four years, and all the members of the house of representatives, who are elected for two years. The county and city and county elective officers are the mayor of the city and county of Honolulu and the supervisors, attorney, treasurer, auditor, clerk, and sheriff of each county and city and county. All other officers of both Territorial and local governments are appointive, with the exception of the employees of the Territorial board of health and of the fire and police departments of the city and county of Honolulu, who are on a civil-service basis.

The supervisors in the county of Maui and the city and county of Honolulu are elected at large, and those of the county of Kauai from the five districts therein. In 1913, of the seven supervisors in the county of Hawaii, who previous to that time were elected from the seven different districts, three were made elective from half of the island, which is one representative district, and three from the other half, which is another representative district, and one, the chairman and executive officer of the board, was made elective at large in the entire island, which is a senatorial district. In 1913 a direct-primary law somewhat similar to the Berkeley system



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of double elections was adopted by the legislature. Provision was also made as to the counties of Kauai, Maui, and Hawaii for holding elections in those counties separately from the Territorial elections, namely, in May of each odd year. Under this law elections were held in those counties in May, 1915.

In 1915 a law was passed which provided that all general elections of officers of the city and county of Honolulu held after 1915 shall be held in May, 1917, and biennially thereafter. The laws providing for general elections of officers of the counties and city and county of Honolulu were amended by the last legislature so that such elections would be held in June, 1917, and biennially thereafter.

Provision was made in 1913 for the issuance of bonds for public improvements by the city and county and by the several counties. So far no such bonds have been issued.

Many years ago the Australian-ballot act and corrupt-practices act were passed. Permanent registration was substituted for special registration of voters for each election, and corporations were prohibited from contributing funds, directly or indirectly, for political purposes.

Statistics covering the last general election, held in November, 1916, are as follows:

Registered voters, by races, at each general election.

Races.	Population 1910.		Registered voters.									
	Total.	Male citizens of voting age.	1900	1902	1904	1906	1908	1910	1912	1914	1916	Gain 1916 compared with 1914.
Hawaiian	38,547	9,802	8,680	9,260	9,635	8,967	9,619	9,435	10,308	10,763	455	
Portuguese	22,303	2,025	594	728	939	1,230	1,530	1,769	2,317	2,510	293	
Chinese	21,674	679	143	175	220	272	396	486	654	777	123	
Japanese	79,674	53	3	2	.....	6	13	48	112	179	67
American	29,711	5,783	1,832	1,872	1,674	1,715	1,763	2,365	3,020	3,294	264	
British			546	542	563	567	554	544	629	648	19	
German			309	301	301	322	333	299	.....	.....	.....
Others			405	373	246	195	234	239	659	720	61	
Total	191,909	18,333	11,216	12,612	13,253	13,578	13,274	14,442	15,185	17,699	18,981	1,282
Increase	1,396	641	325	304	1,168	743	2,514	1,282

RECAPITULATION.

Races.	Registered voters.										Gain 1916 compared with 1914.
	1900	1902	1904	1906	1908	1910	1912	1914	1916		
Hawaiian.....		8,680	9,260	9,635	8,967	9,619	9,435	10,308	10,763	455	
Anglo-Saxon and Latin.....		3,788	3,816	3,723	4,029	4,414	5,216	6,625	7,262	637	
Oriental.....		146	177	220	278	409	534	766	956	190	
Total.....	11,216	12,612	13,253	13,578	12,274	14,442	15,185	17,699	18,981	1,282	
Increase or decrease:											
Hawaiian.....			+580	+375	-668	+652	-184	+873	+455		
Anglo-Saxon and Latin.....			± 30	- 98	+306	+385	+802	+1,409	+637		
Oriental.....			+ 81	+ 43	+ 58	+ 131	+125	+ 232	+ 190		
Total.....			+641	+325	-304	+1,168	+743	+2,514	+1,282		

Votes cast for Delegate to Congress at each general election.

Parties.	1900	1902	1904	1906	1908	1910	1912	1914	1916
Republican.....	3,856	6,628	6,833	7,364	5,698	8,049	7,023	8,590	7,702
Democratic.....	1,650	.....	2,868	2,894	3,824	4,503	5,770	2,909	5,637
Home Rule.....	4,063	4,068	2,289	2,182	2,794	939	346	.....	.....
Socialist.....	.....	.....	.....	.....	.....	.....	201	.....	.....
Progressive.....	.....	.....	.....	.....	.....	.....	.....	610	.....
Total.....	9,589	11,326	11,990	12,430	12,316	13,541	13,340	11,909	13,339
Votes not cast or not counted	1,627	1,288	1,263	1,148	958	901	1,845	5,890	5,642

In the Territorial legislature there are 15 senators and 30 representatives. There are 4 senatorial districts, in which 2, 3, 4, and 6 senators, respectively, are elected, namely, 7 at one biennial election and 8 at the next, and 6 representative districts, in each of 3 of which 4 representatives are elected, and in each of the other 3 of which 6 representatives are elected. In the following tables of senators and representatives some of those classed as belonging to the Home Rule Party in 1901 and 1903 might equally well be classed as fusion candidates of the Democratic and Home Rule parties, or as Independents, and some of the Hawaiians were Portuguese-Hawaiian or Chinese-Hawaiian.

Senators and representatives, by parties and races, in each legislature.¹

Biennial session.	Party.			Race.		
	Repub- lican.	Democ- ratic.	Home Rule.	Ha- waiian.	Portu- guese.	Other whites.
Senators:						
1901.....	6	.....	9	10	.....	5
1903.....	10	1	4	9	.....	6
1905.....	14	1	.....	7	.....	3
1907.....	12	2	1	8	.....	7
1909.....	9	4	2	8	.....	7
1911.....	12	1	2	8	.....	7
1913.....	18	15	2	16	.....	19
1915.....	8	7	.....	7	.....	8
1917.....	12	3	.....	8	1	6
Representatives:						
1901.....	9	4	17	23	.....	7
1903.....	20	.....	10	23	.....	7
1905.....	28	1	1	21	.....	9
1907.....	24	6	.....	24	2	4
1909.....	22	7	1	21	3	6
1911.....	28	.....	2	20	3	7
1913.....	18	11	1	20	2	8
1915.....	29	1	.....	19	4	7
1917.....	24	6	.....	20	5	5

¹ At the beginning of the session 1913 there were 9 Republican, 4 Democratic, 2 Home Rule, 5 Hawaiian and 10 white senators, but during the session 1 white Republican senator died and a Hawaiian Democrat was elected in his place at a special election.

Section 55 of the organic act provides that—

The legislature, at its first regular session after the census enumeration shall be ascertained, and from time to time thereafter, shall reapportion the membership in the senate and house of representatives among the senatorial and representative districts on the basis of the population in each of said districts who are citizens of the Territory.

Bills for carrying out the provisions of this section were introduced in the legislatures of 1911, 1913, and 1915, but in each instance were tabled by the opposition of members from the districts which would lose by reapportionment.

Apportionment of senators and representatives.¹

Senators:	
First district	4
Second district	3
Third district	6
Fourth district	2
Representatives:	
First district	4
Second district	4
Third district	6
Fourth district	6
Fifth district	6
Sixth district	4

LEGISLATURE.

On February 21 the ninth legislature of the Territory commenced its regular biennial session, which covered the full 60 days allotted by law. The relations between the executive and both houses were fairly harmonious. All his nominations were confirmed save two members of the commission on conformity of State laws.

Among the laws enacted of notable effect was an act creating a commission to increase, conserve, regulate, and control the food supplies of the Territory of Hawaii. The necessity for this is clearly expressed by the food chart preceding. For the encouragement of agriculture, live stock, and industry provision was made for an annual territorial fair at Honolulu. The division of hydrography was transferred to the department of public lands, as closely identified with the utilization of lands worthless without irrigation. The penalty and grounds for punishment for frauds on life insurance companies were broadened. Greater protection was provided for libraries, galleries, museums, and exhibits. Banking laws were revised. Power was granted to the board of health to subpoena and examine witnesses under oath. The division of entomology was divided into the division of plant inspection and division of entomology. Private schools may be established only with the approval and consent of the department of public instruction. Relating to income tax, proper account books shall be kept. Laws 86 and 87, relating to the National Guard. Income tax of 1 per cent on all incomes over \$1,000 to and including December 31, 1919. Teachers' pay in public schools, minimum \$40 per month. Creating trade and vocational school at Lahainaluna, Maui. The laws for the parole of prisoners were amended; prisoners may be paroled after minimum sentence with commutation is served, upon recommendation of warden and upon written recommendation of prison inspectors; he may either grant, refuse, or defer, unless the prison inspectors are unanimous; prison inspectors are to make rules; warden shall by tenth day of month present list; warden shall not recommend unless prisoner will live correct life; any person while on parole shall remain in control of said board of prison inspectors; warden must keep in communication with paroled prisoners. County treasurers authorized to issue bonds with approval of supervisors. Provided for display of patriotic emblems in courthouses and courtrooms. Schedule of salaries of public-school teachers provided for. An elaborate insurance law provided

¹ No change since last annual report.

for. Revocation of licenses to practice medicine and surgery. Protection of frogs and tadpoles. Commission on fisheries, prevent and eradicate bovine tuberculosis, and indemnify. Providing for a school for blind and other defective children. Electric-light franchises at Kapaa and Hamakua. Taxing automobiles; practice of dentistry; territorial insurance fund; relating to use of water from artesian wells; providing for income taxation; registration of nurses; adulteration of food; Bertillon and finger-print system provided for. Payments to be made to prisoners for work done. Practice of optometry defined and legalized. Registered voters to exercise suffrage when on military service. Nonresidents forbidden to sell stock of foreign corporations except on certain conditions. Pensioning officers, firemen, bandsmen, and their dependents. Inheritance tax defined. Amendment of the workingmen's compensation act. Reclamation commission for Waikiki. Amendment frontage tax, etc. Other laws were passed, but of a local and incidental nature not necessary to note.

Work of legislatures.

Year.	Days in session.	Cost of session. ¹	Cost per day.	Cost per bill passed.	Bills introduced.	Bills passed.	Bills vetoed. ²	Vetoes sustained.
1901.....	116	\$94,654.94	\$816.00	\$3,505.73	342	27	3	2
1902.....	12	4,028.70						
1903.....	120	90,943.94	757.86	857.96	415	106	8	7
1904.....	12	11,079.68			24	14	1	1
1905.....	103	62,580.06	606.57	563.80	337	111	22	14
1907.....	60	67,258.25	954.31	406.08	361	141	26	14
1909.....	60	58,225.02	970.42	388.06	388	152	8	7
1909.....	5	11,636.61			7	2		
1911.....	60	70,245.84	1,170.75	415.96	410	169	5	3
1913.....	60	83,495.75	1,391.59	491.15	466	170	6	6
1915.....	60	71,478.67	1,191.31	316.28	498	226	3	3
1917.....	60	84,087.23	1,401.45	348.91	607	341	3	2

¹ Part of the expenses of the last five regular sessions were paid out of the Federal appropriations, as follows: 1907, \$27,349.04; 1909, \$29,939.26; 1911, \$28,938.38; 1913, \$30,000; 1915, \$30,000; 1917, \$27,404.14.

² The vetoes in the table do not include vetoes of items in appropriation bills or pocket vetoes. The record as to items in appropriation bills is as follows: In 1903, 48 vetoed, all sustained; in 1905, 42 vetoed, 36 sustained; in 1907, 18 vetoed, 3 sustained; in 1909, 10 vetoed, 8 sustained; in 1911, 3 vetoed, 1 sustained; in 1913, 3 vetoed, all sustained; in 1905, none; in 1907, 1 vetoed, overridden. The record as to pocket vetoes is as follows: In 1905, 12; in 1907, 13; in 1909, 17; in 1911, 6; in 1913, 9; in 1915, 4; in 1917, 10.

³ Special session of the senate.

⁴ Special session of the legislature.

COUNTY AND CITY AND COUNTY GOVERNMENTS.

On July 1, 1905, local governments in Hawaii were established for the first time. The Territory was then divided into four counties, one of which, namely, that comprising the island of Oahu, was converted on January 1, 1909, into a city and county, known as the city and county of Honolulu, with a mayor. The leper settlement on the island of Molokai forms a fifth county, which is controlled by the Territorial board of health.

The elections of all county and city and county officers have now been divorced from the Territorial elections to avoid confusion between the Territorial and municipal candidates for office. Elections were held for the first time under the new law in the counties of Kauai, Maui, and Hawaii in May, 1915, and the officers elected took office on the 1st of July. Provision was made by the 1915 session of the legislature that all general elections of officers of the city and

county of Honolulu held after 1915 shall be held in May, 1917, and every second year thereafter, and the officers so elected shall take office on the 1st of July following their election. The last legislature amended the election laws so that all county and city and county elections would be held in June, 1917, and the officers so elected would take office on July 1 following their election.

A charter convention to prepare a new charter or act providing for the government for the city and county of Honolulu was provided for by the 1915 session of the legislature, which charter was passed by the last legislature with amendments, but vetoed by the governor.

County governments are gradually being developed and their powers extended.

Following is given the income of the various counties for the fiscal year ended June 30, 1917, showing an increase of \$677,126.45 over the previous fiscal period:

Income of counties fiscal year ended June 30, 1917.

Counties.	Collected by Territory for counties.		Collected by counties.				Total.
	General taxes.	Road tax.	License fees.	Fines and costs.	Water and sewer rates.	Miscellaneous.	
Honolulu (Oahu).....	\$911,186.63	\$126,226.39	\$155,340.46	\$34,297.47	\$247,311.97	\$71,173.31	\$1,890,316.46
Hawaii.....	507,572.75	60,700.18	71,393.45	27,306.64	17,308.96	45,705.34	729,987.31
Mauai.....	395,209.23	35,639.59	32,249.80	18,335.05	18,753.48	13,315.72	516,502.86
Kauai.....	235,357.29	31,191.55	21,026.20	8,888.85	5,067.05	2,766.17	304,296.11
Total 1917.....	2,049,325.89	256,757.71	280,008.91	88,828.01	288,441.45	132,960.54	3,441,102.74
Total 1916.....	1,753,808.38	213,210.95	273,449.99	113,946.35	279,762.08	99,708.56	2,763,976.29
Increase.....	295,427.51	43,546.76	6,558.92	.....	8,679.39	33,251.98	677,126.45
Decrease.....	.....	.....	.....	25,118.34	.....	.....	.....

¹ Including \$344,780.23 from sale of bonds and improvement assessments.

FINANCES.

BONDED DEBT.

The bonded indebtedness of the Territory on July 1, 1916, was \$8,024,000, which amount was decreased during the year by the payment of the 1905 issue of 4 per cent public-improvement bonds to the amount of \$150,000, making the indebtedness at the close of the fiscal period \$7,874,000.

Territorial bonded indebtedness June 30, 1917.

Date of issue.	Term in years.	Interest.	Sale price.	Percentage basis.	Aggregate outstanding.	Date due.	Where sold.
Oct. 4, 1905.....	5 to 15	<i>P. cl.</i> 4	101.375	3.70	\$450,000	Oct. 4, 1920	Honolulu.
Jan. 2, 1906.....	5 to 15	34	98.125	3.66	750,000	Jan. 2, 1921	New York.
Oct. 1, 1907.....	5 to 15	34	98.150	3.66	294,000	Oct. 1, 1922	Honolulu.
Oct. 1, 1909.....	5 to 15	34	98.250	3.65	200,000	Oct. 1, 1924	Do.
Aug. 1, 1911.....	20 to 30	4	101.5875	3.88	1,500,000	Aug. 1, 1941	New York.
Sept. 3, 1912.....	20 to 30	4	100.5987	3.985	1,500,000	Sept. 3, 1942	Do.
Sept. 15, 1914.....	20 to 30	4	100.01	4.00	1,430,000	Sept. 15, 1944	New York and Honolulu.
May 15, 1916.....	20 to 30	4	100.00	4.00	1,750,000	May 15, 1946	Do.

Outstanding indebtedness June 30, 1917, \$7,874,000.

The bonded indebtedness at the close of the year was 3.89 per cent of the assessed value of property. The limit of aggregate indebtedness is fixed by the organic act as 7 per cent of such assessed value, and the limit of the amount that may be incurred in any one year is fixed at 1 per cent.

Heretofore public improvements have been made out of the proceeds of the sale of Territorial bonds, whether the improvements were of a strictly Territorial or of a local nature; but during the last few years a distinction has been made requiring the local governments for whose benefits the bonds are issued to reimburse the Territory out of their revenues for the interest and sinking fund of bonds, the proceeds of which are used for local improvements.

The legislature of 1911 authorized the issuance of bonds to the amount of \$3,797,240 for public improvements; the legislature of 1913 amended the law by additions, omissions, and alterations, so as to authorize the issuance of an aggregate of \$4,503,977.99; the legislature of 1915 similarly amended the law to authorize the issuance of an aggregate of \$4,504,338.62; and the 1917 legislature increased the amount by \$2,656,320, making the aggregate \$7,160,658.62. Under the law and from the standpoint of purchasers these public-improvement bonds are strictly Territorial bonds, but they may be classified as (1) those amounting to \$3,389,696.77 for Territorial public improvements, to be paid out of the general Territorial revenues; (2) those amounting to \$724,600 for special public improvements, namely, the Honolulu water and sewer works, which were transferred to the city and county of Honolulu on June 30, 1914, for the payment of which the Territory is to be reimbursed out of the revenues derived from those works; and (3) those amounting to \$3,046,361.85 for county public improvements, namely, \$904,331.03 for the city and county of Honolulu, \$733,888.08 for the county of Maui, \$1,208,142.74 for the county of Hawaii, and \$200,000 for the county of Kauai, for the payment of which the Territory is to be reimbursed by the respective counties.

The entire authorized issue of \$7,160,658.62 may be classified as follows as respects the nature of the public improvements contemplated: Wharves and harbors, \$2,399,420.33; roads, \$2,394,463.73; water and sewer works, \$869,489.85; public-school buildings, \$297,283.87; special industrial schools, \$125,806.02; other public buildings, \$620,497.02; armories, \$238,833; purchase of parks and playgrounds, \$58,320; miscellaneous, \$156,483.80.

For securing the necessary funds bonds have been issued as follows: August 1, 1911, \$1,500,000; September 3, 1912, \$1,500,000; and September 15, 1914, \$1,430,000, yielding proceeds to the amount of \$4,430,000, to which should be added \$47,355.20 accrued interest on deposits of loan moneys pending their expenditure and \$693.41, the balance of previous loans, making an aggregate of \$4,478,048.61. Up to the end of the fiscal year there has been expended out of the bond issues of 1911, 1912, and 1914 on various improvements \$3,925,618.55, leaving an unexpended balance of \$552,430.06.

The issue of 1911 was sold on the average at 101.5875, that of 1912 at 100.58875, and \$1,430,000 of the issue of 1914 at 100.01. It is notable that irrespective of unstable financial conditions the world over the Territory has been able to sell its 4 per cent bonds at par

or better. All of these bonds are accepted as security for United States deposits in national banks at their market value, not exceeding their par value, excepting the 3½ per cent bonds, which are accepted at only 90 per cent of their par value.

All outstanding bonds have been issued for public improvements, except the \$600,000 and the \$1,750,000 issues, which were for the refunding of previous public-improvement bonds.

In the sinking-fund account the net cash balance at the beginning of the year was \$55,217.54, to which was added during the year from land sales \$12,767.85; from interest on bank deposits, \$830.72; from general revenues as provided by the sinking-fund acts, \$177,363.17; making a total of \$233,411.45, and \$150,000 was paid for taking up 4 per cent bonds of October 4, 1905, and \$5,000.50 invested in the Territory of Hawaii 4 per cent bonds of 1914 issue, leaving a cash balance of \$78,410.95 at the close of the year.

In the loan-fund account the net cash balance at the beginning of the year was \$1,897,099.25, to which was added during the year \$15,770.17 from interest on bank deposits, making a total of \$1,912,869.42, against which warrants have been paid to the amount of \$444,933.05, unpaid warrants paid to the amount of \$12,605.95, 4½ per cent bonds refunded to the amount of \$500,000, and 4½ per cent bonds to the amount of \$389,000, totaling \$889,000, leaving at the close of the year a cash balance of \$566,330.42, and outstanding warrants amounting to \$13,900.36.

RECEIPTS AND DISBURSEMENTS.

The Territory continues to collect and pay over to the city and county and the counties the greater part of their revenues, and in turn receives back from them the cost of assessing and collecting taxes and the interest and sinking fund on bonds issued by the Territory for the benefit of the counties.

Cash on hand and floating indebtedness, general account, at end of each fiscal year since organization of Territorial government.

Fiscal years.	Cash on hand.	Outstanding warrants.	Net floating indebtedness.	Net cash available for ensuing year.
1901.....	\$75,994.97	\$178,495.45	\$100,500.48	.....
1902.....	287,131.30	297,427.87	10,296.57	.....
1903.....	73,181.63	240,713.42	167,531.79	.....
1904.....	56,613.29	709,014.31	652,401.02	.....
1906.....	59,408.49	603,426.89	544,018.40	.....
1906.....	335,331.37	72,227.96	.....	\$263,103.41
1907.....	348,216.51	34,740.49	.....	313,476.02
1908.....	301,737.19	225,801.71	.....	165,845.48
1909.....	134,759.21	170,718.67	35,959.46	.....
1910.....	845,218.51	146,247.55	.....	698,970.96
1911.....	822,282.07	181,977.58	.....	640,304.49
1912.....	690,550.70	69,141.66	.....	621,409.04
1913.....	716,729.60	56,008.61	.....	660,720.99
1914.....	366,001.24	43,955.84	.....	322,045.40
1915.....	464,040.43	49,162.62	.....	414,877.81
1916.....	539,388.71	51,306.23	.....	488,082.48
1917.....	889,508.42	95,102.12	.....	794,406.30

Treasury cash balances, all accounts, at end of fiscal years 1913, 1914, 1915, 1916, and 1917.

	1913	1914	1915	1916	1917
Current revenues:					
General.....	\$716,729.60	\$366,001.24	\$464,040.43	\$539,388.71	\$899,508.42
Immigration and conserva- tion.....	281,299.41	284,812.18	12,810.17	29.23	103,217.98
Immigration.....				101,189.27	124,382.01
Sanitation fund.....	248,873.12	217,539.81	206,048.83	151,967.48	
Honolulu water and sewer works.....	2,080.09	148.10			
School fund.....	35,463.29	66,698.70	82,653.79	94,573.24	86,338.37
Sinking fund.....	1,018.84	107,481.46	45,192.74	55,217.54	78,410.96
Special land sales.....	104,898.00	96,144.47	126,373.06	157,185.59	136,261.17
Miscellaneous special funds.....	10,476.43	37,974.12	71,338.10	91,825.99	84,189.97
Total.....	1,400,309.38	1,176,749.57	1,008,456.61	1,191,377.00	1,511,308.87
Loan fund.....	878,779.50	109,666.00	1,128,455.89	996,653.48	566,330.42
Grand total.....	2,279,088.88	1,286,315.57	2,136,912.50	2,190,030.48	2,077,639.29

Receipts and disbursements, general account, fiscal year ended June 30, 1917.

RECEIPTS.

Taxes:

Real property.....	\$1,547,872.50	
Personal property.....	1,224,552.02	
Interest and penalties.....	14,705.43	
Specific property (autos, carriages, etc.).....	152,572.99	
Income, general.....	799,800.86	
Income, special.....	367,920.35	
Personal (poll, school, road).....	275,432.65	
		\$4,382,856.80
Insurance.....		38,357.87
Inheritance.....		19,852.44
Documentary stamps.....		52,276.50
Land sales.....		119,934.34
Land revenue (rents, etc.).....		254,046.53
Harbor, wharf, and pilot revenues.....		130,232.79
Recording fees.....		24,853.50
Fines and costs.....		1,034.31
Support of United States prisoners.....		2,903.55
Interest on bank deposits (exclusive of loan).....		19,639.35
Miscellaneous.....		201,948.58
Total receipts.....		5,247,936.56
Transfers from special funds.....	\$434,305.00	
Paid by counties.....	262,511.39	
		696,816.39
		5,944,752.95
Cash balance July 1, 1916.....		539,388.71
Total.....		6,484,141.66

DISBURSEMENTS.

Legislature.....	\$54,250.12
Elections.....	11,806.53
Governor's and secretary's office.....	11,265.34
Library of Hawaii.....	12,253.67
Archives bureau.....	5,521.16
National Guard.....	53,871.15
Expenses, congressional visitors.....	20.00
Expenses, food commission.....	4,497.97
Promotion.....	6,000.00
Pensions.....	19,945.00

Auditing department.....	\$12,870.23	
Treasury department.....	22,511.68	
Tax bureau.....	92,719.92	
College of Hawaii.....	13,851.82	
Public works department.....	59,315.05	
Harbor commission.....	106,126.27	
Public lands department.....	26,614.22	
Survey department.....	19,136.76	
Expenses entertainment.....	2,145.53	
Public-health department.....	451,852.67	
Judiciary department.....	18,525.43	
Attorney General's department.....	17,433.62	
Prison.....	66,390.05	
Record bureau.....	23,865.06	
Hilo public library.....	2,649.46	
Panama-Pacific Exposition.....	149.45	
Hawaiian dictionary.....	2,400.00	
Industrial accident boards.....	5,919.75	
Agriculture and forestry.....	108,451.16	
Immigration.....	23,860.28	
Water commission.....	4,047.38	
Decisions United States District Court.....	6.90	
Miscellaneous.....	3,496.46	
Rapid-transit suit.....	153.45	
Water investigation.....	216.30	
		\$1,263,944.84
Interest on public debt.....		322,204.30
Transferred to special accounts:		
Sinking fund.....	176,039.31	
Land purchases.....	23,886.83	
Homestead roads.....	98,020.31	
Surveying and opening homesteads.....	15,000.00	
Registering land assurance.....	1,084.84	
Industrial schools.....	3,907.23	
College of Hawaii.....	5,697.06	
Sanitation fund.....	42,616.14	
School fund.....	1,221,881.64	
Public-utilities fund.....	12,236.26	
Armory boards.....	375.00	
Kalaupapa store revolving fund.....	27,962.70	
Marketing division revolving fund.....	10,713.12	
Insurance fund.....	21,025.63	
Homesteaders' improvements.....	340.00	
Teachers' pension fund.....	6,352.89	
Immigration fund.....	52,028.71	
Lahainaluna school.....	9,782.72	
Forest reserve fund.....	246.00	
Roads, Piipholo, Maui.....	17,000.00	
		1,746,196.39
Paid to counties:		
City and county of Honolulu.....	1,037,413.02	
County of Hawaii.....	568,272.93	
County of Maui.....	433,848.81	
County of Kauai.....	266,548.84	
		2,306,083.60
		5,638,429.13
Outstanding warrants, June 30, 1916.....		51,306.23
		5,689,735.36
Current cash balance, June 30, 1917.....	889,508.42	
Outstanding warrants, June 30, 1917.....	95,102.12	
		794,406.30
Total.....		6,484,141.66

SPECIAL FUNDS.
Statement of all special funds for fiscal year ended June 30, 1917.

Funds.	Net cash July 1, 1916.	Receipts.		Total available.	Expenditures.			Net cash June 30, 1917.
		Receipts.	Transfers from other special accounts.		Expenditures.	Transfers to general and other special accounts.	Total expenditures.	
School.....	\$77,463.68	\$871,881.64	\$850,000.00	\$1,269,345.32	\$888,046.84	\$350,000.00	\$1,238,046.84	\$61,298.48
Sanitation.....	151,708.48	42,616.14		194,324.62	59,973.39		59,973.39	124,351.23
Sinking.....	55,217.54	176,089.31	2,154.90	233,411.45	155,000.50		155,000.50	78,410.95
Surveying and opening homesteads.....	4,183.89	15,000.00		19,183.89	19,145.29		19,145.29	18.60
Homestead roads:								
Oahu.....	9,645.80	6,474.95	592.80	16,713.55	11,448.13		11,448.13	5,265.42
Hawaii.....	48,910.43	43,881.03	189.63	92,961.09	28,477.31	9,000.00	37,477.31	55,483.78
Maui.....	3,860.00	1,041.34	100.31	5,001.65	10.00		10.00	4,991.65
Kauai.....	1,189.52	2,839.42		4,028.94	868.00	2,700.00	3,568.00	4,460.94
Kauaiuan.....	831.20	5,406.73		6,237.92		5,000.00	5,000.00	1,237.92
Kaneohe.....	978.05			978.05				978.05
Kihuna and Ophihale.....								
Kihuna.....	1,886.20			1,886.20	399.73		399.73	1,486.47
Kula.....	592.80			592.80		592.80	592.80	
Kulahe.....	2,675.22	4,919.02		7,594.24	3,878.49	2,100.00	5,978.49	1,615.75
Pihilo.....			17,000.00	17,000.00	15,781.71		15,781.71	1,218.29
Punahoa.....			9,000.00	9,000.00				9,000.00
Punakapu.....								
Residence tract roads:								
Alewa.....	26.09			26.09		26.09	26.09	
Kawalia.....	3,671.61	220.70		3,992.31				3,992.31
Makiki slopes.....	1,205.91			1,205.91		1,205.91	1,205.91	
Waiala.....	216.65	691.49		908.14		908.14	908.14	
Kulouou.....	5,151.74	1,729.87		6,881.61				6,881.61
Olaa.....	1,446.59	1,166.33		2,612.92				2,612.92
Anawakolu.....	40,759.96	22,567.03		63,326.99	37,735.68	23,037.30	60,772.98	2,554.01
Makiki round top.....	10,286.57	6,289.90	37.30	16,613.77	5,555.37	100.31	5,655.68	10,948.19
Kuwili.....	1.22			1.22			1.22	
Waioli.....	862.83			862.83				862.83
Makaohe.....	189.63			189.63		189.63	189.63	
Kaneohe.....	2,981.00			2,981.00				2,981.00
Waioli-Kaohe.....	338.57	1,173.26		1,511.83	6.30	1,505.53	1,511.83	
Land purchases:								
Oahu.....	6,305.82	7,078.88		13,384.65	5,000.00		5,000.00	8,384.65
Hawaii.....	5,309.00	16,767.00		22,076.00	8,141.90		8,141.90	13,934.10
Maui.....	1,003.00	41.00		1,044.00		5,000.00	5,000.00	1,044.00
College of Hawaii.....	1.39	5,297.04		5,298.43	5,298.74		5,298.74	8.71
Lahaina school.....	9,796.77	9,782.72		19,579.49	3,064.87		3,064.87	16,514.62

Girls' industrial school.....	149.88	1,346.51	1,486.34	1,322.01	1,322.01	174.33
Boys' industrial school.....	1,914.54	2,560.73	4,475.26	4,457.48	4,457.48	17.78
Forestry preservation.....	3,449.25	246.00	3,695.25	.....	.....	3,695.25
Marketing bureau.....	571.83	.....	571.83	.....	.....	571.83
Land registration.....	6,527.98	.....	6,612.82	.....	.....	6,612.82
Homeowners' improvement.....	.....	1,084.84	340.00	.....	.....	340.00
Kaupakalua land sales.....	.....	528.25	528.25	.....	.....	.....
Public utilities commission.....	14,084.14	12,228.26	26,320.40	19,328.92	19,328.92	6,991.48
Army boards.....	304.79	375.00	26,679.79	265.35	265.35	414.44
Kalaupapa store.....	1,511.66	27,992.70	29,474.36	29,402.92	29,402.92	71.44
Marketing division revolving fund.....	1,040.13	3,213.12	11,753.25	1,852.50	1,852.50	9,900.75
Territorial insurance fund.....	20,660.42	21,025.63	46,986.55	23,929.21	23,929.21	23,057.34
Division of forestry.....	.....	.....	.....	.....	.....	.....
Immigration fund.....	101,189.27	2,028.71	153,217.98	50,000.00	50,000.00	103,217.98
College of Hawaii scholarship account.....	.....	400.00	400.00	.....	.....	.....
Teachers' pension fund.....	5,313.94	6,352.86	11,666.80	781.80	781.80	10,884.93
Transcove Street extension.....	5,689.84	.....	13,090.34	3,971.80	3,971.80	.....
Roads, Waialae, Hilo.....	13,812.96	.....	13,812.96	13,471.94	13,471.94	341.02
Filling lands and proposed roadway, Ponoehaui, South Hilo.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	5,000.00	.....	.....	5,000.00
Total special funds.....	622,220.74	1,321,996.39	2,390,892.27	451,379.64	1,798,918.30	591,973.97
Loan fund.....	1,870,692.94	15,770.17	1,886,363.11	.....	1,333,933.05	552,430.06
General fund.....	488,062.48	5,510,447.95	6,432,835.43	1,746,196.36	5,633,429.13	794,406.30
Total all funds.....	2,980,966.16	6,847,914.51	10,710,080.81	6,673,704.45	8,771,280.48	1,988,810.33

TAXATION.

From time to time during the last few years the tax system has been changed considerably. At present the taxes are as follows:

The principal tax is the general property tax. The rate varies according to needs. This year the rate is 1.21 per cent in the city and county of Honolulu, 1.26 per cent in the county of Maui, 1.3 per cent in the county of Hawaii, and 1.35 per cent in the county of Kauai. The Territory takes the portion paid in respect of property which is not of a local nature, such as that used in transmitting intelligence, passengers, mail, or freight from one island to another, or to vessels at sea, or to other lands. The counties take as much as is required up to one-half of 1 per cent for current expenses and up to two-thirds of 1 per cent for current expenses and permanent improvements together on all other property within their respective limits. The remainder goes to meet the requirements for interest and sinking fund on county bonds, if any; interest and sinking fund on bonds issued by the Territory for the benefit of the counties, school buildings, and grounds, which are cared for by the counties; general support of the schools which are under the Territory; and the cost of assessing and collecting taxes.

The specific property taxes are on carriages, carts, etc., \$2 and \$5; on bicycles, \$1; and on automobiles, 1 cent a pound, all of which goes to the counties for road purposes; and on dogs, \$1, which goes to the counties for general purposes.

The personal taxes are poll, \$1; road, \$2; school, \$2; paid by males from 20 to 60 years of age. Of these the counties take the poll taxes for general purposes and the road taxes for road purposes, and the Territory takes the school taxes for school purposes. Under act of the 1915 legislature, effective July 1, 1915, 2½ per cent of the school taxes collected is to be set aside as a special fund for teachers' pensions.

The general income tax is 2 per cent on incomes in excess of \$1,500. This goes to the Territory for general purposes. A special income tax of 1 per cent on incomes in excess of \$4,000 was used by the Territory for immigration and conservation purposes, evenly divided. The law providing for this tax for specific purposes lapsed, and immigration and conservation are now provided for out of general revenues. The 1915 legislature passed an act, effective January 1, 1916, which continues in force up to and including December 31, 1917, which replaces the one referred to herein and provides for an additional income tax of 1 per cent on all corporation incomes and upon individual incomes in excess of \$4,000, to be used by the Territory for general purposes.

The inheritance and insurance taxes go to the Territory for general purposes. The inheritance tax rates on direct inheritances in excess of \$5,000 by persons other than aliens and nonresidents of the United States are as follows:

1½ per cent on amounts between.....	\$5,000 and \$20,000
2 per cent on amounts between.....	20,000 and 50,000
2½ per cent on amounts between.....	50,000 and 100,000
3 per cent on amounts between.....	100,000 and 250,000
3½ per cent on amounts over	250,000

And those on collateral inheritances in excess of \$500 by persons other than aliens and nonresidents of the United States are as follows:

3 per cent on amounts between-----	\$500 and \$5,000
5 per cent on amounts between-----	5,000 and 20,000
5½ per cent on amounts between-----	20,000 and 50,000
6 per cent on amounts between-----	50,000 and 100,000
6½ per cent on amounts over-----	100,000

The rate on inheritances by aliens or nonresidents of the United States in excess of \$500 is 10 per cent.

The insurance tax is 2 per cent of gross premiums, less return premiums and reinsurance, and in the case of life insurance companies less expenses also. A special insurance tax of 5 per cent, payable by insured, on premiums of fire insurance policies in non-authorized companies was provided by the 1915 legislature, the same to go to the Territory for general purposes.

The following table of taxes collected during the period shows the Anglo-Saxon population as carrying the larger portion of this burden. The total increase over the previous period is \$660,114.73, the increase for Anglo-Saxons being \$597,605.74.

Taxes collected for the year ended June 30, 1917, by races, etc., of taxpayers, inclusive of interest, penalties, and costs.

Kind of taxes, etc.	Anglo-Saxons.	Hawai-ians.	Portu-guese and Spanish.	Chinese.	Japanese.	Total.
Real property:						
Corporations, firms, etc.....	\$963,965.46	\$5,104.85	\$1,969.82	\$5,813.23	\$6,242.28	\$983,095.64
Other than corporations, firms, etc.....	288,976.00	180,168.10	54,653.14	34,066.26	15,028.09	572,891.59
Personal property:						
Corporations, firms, etc.....	1,060,676.51	5,148.20	4,132.65	17,534.27	9,241.55	1,096,733.18
Other than corporations, firms, etc.....	46,891.91	19,226.95	6,993.66	23,604.92	37,602.10	134,409.54
Specific property: Automobiles, carriages, etc.....	83,813.94	9,349.44	11,671.10	10,544.22	37,194.29	152,572.99
Personal: Poll, road, and school..	35,252.20	15,455.10	52,397.10	22,962.50	146,365.75	275,432.65
Income, general:						
Corporations, firms, etc.....	683,660.21	362.60	788.06	1,168.01	2,812.02	688,791.50
Other than corporations, firms, etc.....	96,241.52	6,803.35	2,680.08	816.97	2,467.44	111,009.36
Income, special:						
Corporations, firms, etc.....	341,629.44	168.80	303.98	583.43	1,401.48	344,177.13
Other than corporations, firms, etc.....	20,911.57	1,697.77	524.48	192.95	416.45	23,743.22
Total.....	3,624,018.76	246,486.16	136,204.07	117,376.76	258,772.05	4,382,856.80

Sources and distribution of all revenues of the Territory and the counties, fiscal year ended June 30, 1917.

Distribution.	Collected by the Territory.						Collected by the counties.					Total.	
	General property taxes.	Specific property taxes.	Income taxes.	Personal taxes.	Inheritance taxes.	Insurance taxes.	Miscellaneous revenues.	License fees.	Fines and costs.	Water and sewer rates.	Miscellaneous revenues.		Sale of bonds and improvement assessments.
Territory: General fund.....	\$37,965.75		\$1,167,721.21		\$19,852.44	\$338,357.87	\$306,044.06						\$2,086,971.32
Territory as agent for counties:													
Assessing and collecting taxes.....	89,100.00												89,100.00
Interest and sinking fund.....	113,626.95												113,626.95
Schools:													
General support under Territory.....	761,372.08			\$109,684.16			825.40						871,881.64
Buildings and grounds under counties.....	172,240.25												172,240.25
Counties: General fund.....	1,612,794.92	\$6,964.19		54,869.58			\$280,008.91	\$49,528.01	\$288,441.45	\$132,900.54	\$344,780.23		2,809,377.83
Roads.....		145,878.80		110,878.91									266,757.71
Total.....	2,787,129.96	152,872.99	1,167,721.21	275,432.66	19,852.44	338,357.87	806,860.45	280,008.91	88,828.01	288,441.45	132,900.54	344,780.23	6,382,965.70

Taxes, by years, ended June 30, since organization of Territorial government.*

Fiscal year.	Real property.	Personal property.	Specific property.	Personal.	Income general. ^a	Income special.	Penalties, costs, and interest. ^a	Inheritance.	Insurance.	Total.
1901	\$444,059.63	\$490,392.69	\$18,751.36	\$249,604.00	.....	.....	\$9,294.58	\$639.29	\$3,223.65	\$1,216,265.20
1902	632,637.09	671,248.00	20,412.19	231,488.00	.....	.....	11,847.92	6,074.34	3,344.00	1,664,181.43
1903	560,456.81	592,325.37	22,591.00	265,043.00	226,526.44	.....	13,385.29	1,393.33	4,653.11	1,632,405.46
1904	618,960.81	607,589.53	22,998.80	240,738.00	170,511.71	.....	15,848.97	70.00	4,628.58	1,681,260.40
1905	609,343.72	570,654.55	23,543.50	249,980.00	158,978.87	.....	16,500.18	6,271.71	6,883.69	1,639,175.12
1906	901,433.76	928,841.53	47,989.70	243,965.00	391,366.05	.....	13,703.59	5,879.69	8,760.61	2,001,920.13
1907	654,737.94	631,326.36	39,644.40	239,001.00	187,657.91	.....	21,435.83	8,778.74	14,202.74	1,796,826.92
1908	640,051.43	635,265.81	41,350.50	244,832.00	266,241.74	.....	17,697.93	21,480.06	13,978.38	1,880,847.83
1909	668,721.99	678,886.40	40,963.00	235,520.00	389,500.94	.....	19,137.76	17,011.88	26,564.55	2,080,635.71
1910	709,943.35	720,252.68	46,554.50	248,663.00	435,984.40	.....	17,262.86	150,113.11	20,141.87	2,726,650.04
1911	766,429.68	733,806.46	49,734.96	241,918.00	421,375.68	.....	14,687.90	187,974.95	21,173.78	2,667,178.90
1912	895,331.33	821,518.96	56,930.56	243,048.00	498,416.96	.....	14,688.02	19,421.54	25,620.96	3,173,644.88
1913	1,037,300.83	915,470.69	64,626.21	242,807.30	513,398.40	.....	11,168.27	30,634.00	30,898.13	3,256,574.88
1914	1,068,267.52	868,613.63	74,913.10	288,246.55	422,094.39	.....	23,728.79	18,543.58	30,166.92	3,108,788.53
1915	1,200,618.75	928,231.98	89,817.76	267,860.00	168,594.72	.....	9,640.86	17,303.06	33,321.18	3,927,366.80
1916	1,378,454.92	1,092,683.27	110,230.97	265,636.06	562,350.58	.....	15,107.43	19,863.44	38,357.87	4,441,007.11
1917	1,547,572.50	1,224,652.02	152,572.99	275,432.06	799,800.86	.....	14,705.43	19,863.44	38,357.87	4,441,007.11

1 For purpose of comparison, the real and personal property and income taxes for 1918 should be about one-third less, as they include an extra half year's taxes.

^a Including penalties, costs, and interest.

^b Except on income taxes.

Assessments of real and personal property, by fiscal years, since organization of Territorial government.

Fiscal year.	Real property.	Personal property.	Total.
1901.....	\$58,547,890	\$62,025,038	\$121,172,928
1902.....	60,591,587	62,319,216	122,910,803
1903.....	66,137,075	63,676,007	129,812,682
1904.....	63,516,979	60,331,325	123,898,504
1905.....	67,509,036	66,415,064	133,924,100
1906.....	66,908,337	64,266,678	131,175,015
1907.....	64,901,609	66,149,614	131,051,223
1908.....	66,936,032	65,354,150	132,290,182
1909.....	68,440,615	70,470,205	138,910,820
1910.....	78,792,323	74,475,944	153,268,267
1911.....	77,887,826	76,696,206	154,584,032
1912.....	90,889,057	85,945,744	176,834,801
1913.....	93,853,810	81,347,351	175,201,161
1914.....	91,050,895	70,136,331	161,187,226
1915.....	99,186,323	77,414,899	176,601,222
1916.....	113,922,014	93,048,215	206,970,229
1917.....	129,340,001	102,580,918	231,920,919

Assessed value of real and personal property for 1917, by taxation divisions.

Taxation divisions.	Real property.	Personal property.	Total, 1917.	Total, 1916.	Per cent increase, 1917.
First, city and county of Honolulu..	\$66,528,200	\$49,075,650	\$115,603,850	\$101,790,014	11.95
Second, county of Maui.....	24,245,993	19,467,187	43,713,180	37,527,250	15.15
Third, county of Hawaii.....	27,945,848	22,238,663	50,184,511	45,495,110	9.34
Fourth, county of Kauai.....	10,619,960	11,799,418	22,419,378	22,157,855	1.16
Total for the Territory.....	129,340,001	102,580,918	231,920,919	206,970,229	10.76

Assessed value of real and personal property for 1917, by races, etc., of taxpayers.

Taxpayers.	Real property.		Personal property.		Total assessed value.	Percentage.
	Number taxpayers.	Assessed value.	Number taxpayers.	Assessed value.		
Corporations, firms, etc.....	701	\$80,006,477	771	\$60,333,484	\$170,338,961	73.45
Anglo-Saxons.....	3,243	25,105,893	2,060	3,622,442	28,728,335	12.43
Hawaiians.....	6,189	15,373,985	2,213	1,747,938	17,121,923	7.34
Chinese.....	1,051	2,616,541	2,005	2,389,641	5,006,182	2.16
Portuguese and Spanish.....	2,471	4,872,965	1,577	696,337	5,569,302	2.40
Japanese.....	1,025	1,364,140	3,851	3,792,076	5,156,216	2.22
Total.....	14,680	129,310,001	12,467	102,580,918	231,920,919	100.00

Cost of assessing and collecting taxes, years ended June 30.¹

Fiscal year.	Actual cost.	Percentage of amount collected.	Fiscal year.	Actual cost.	Percentage of amount collected.
1901.....	\$54,996.06	4.52	1910.....	\$65,532.11	2.56
1902.....	63,300.33	3.81	1911.....	63,516.59	2.44
1903.....	70,194.46	4.25	1912.....	73,530.67	2.48
1904.....	71,362.16	4.24	1913.....	78,096.02	2.44
1905.....	59,665.71	3.66	1914.....	81,362.68	2.86
1906.....	73,350.92	2.83	1915.....	89,739.99	2.97
1907.....	66,711.41	3.78	1916.....	85,480.08	2.39
1908.....	57,160.18	3.64	1917.....	92,719.92	2.12
1909.....	62,768.42	3.08			

¹ Not including inheritance and insurance taxes.

² For purposes of comparison, 3.81 should be used instead of 2.83

CORPORATIONS.

During the last fiscal year a total of 62 corporations were created and 45 dissolved, as follows:

	Created.	Dissolved.
Mercantile.....	38	41
Agricultural.....	11	4
Bank.....	1	
Eleemosynary.....	8	
Trust.....	1	
Savings and loan.....	3	
Total.....	62	45

Leaving at the close of the year 753 domestic corporations, an increase of 17 in all. The total capitalization of domestic corporations other than eleemosynary, etc., is \$170,076,228, an increase of \$8,160,700, or 4.7 per cent for the year. Foreign corporations to the number of 153, as compared with 154 of the preceding year, are authorized to do business in the Territory. Two national banks also do business in the Territory, as compared with five of the preceding year. The classes, number, and capitalization of the domestic corporations now in existence incorporated before and after the transfer of sovereignty to the United States are as follows:

Hawaiian corporations.

Class.	Number.			Capital.		
	Incorporated before Aug. 12, 1898.	Incorporated after Aug. 12, 1898.	Total.	Incorporated before Aug. 12, 1898.	Incorporated after Aug. 12, 1898.	Total.
Agricultural.....	47	107	154	\$47,865,750	\$35,732,950	\$83,598,700
Mercantile.....	40	361	401	19,607,625	43,223,943	62,831,568
Railroad.....	5	4	9	7,370,000	7,129,980	14,499,980
Street car.....		2	2		1,950,000	1,950,000
Steamship.....			1	3,000,000		3,000,000
Bank.....	1	6	7	609,000	1,650,000	2,259,000
Savings and loan.....		13	13		746,000	746,000
Trust.....	1	6	7	200,000	800,000	1,000,000
Insurance.....		2	2		200,000	200,000
Eleemosynary.....	34	123	157			
Total.....	129	624	753	78,643,375	91,432,853	170,076,228

Income taxes¹ collected for the year ended June 30, 1917, by races, etc., of taxpayers.

Taxpayers.	General income.		Special income.		Total.	Percentage.
	Number taxpayers.	Amount collected.	Number taxpayers.	Amount collected.		
Corporations, firms, etc.....	365	\$688,759.64	348	\$344,142.98	\$1,032,902.62	88.51
Anglo-Saxons.....	1,887	97,860.61	353	20,876.35	118,736.96	10.18
Hawaiians.....	195	6,676.75	22	1,694.27	8,371.02	.72
Japanese.....	82	2,402.64	20	447.95	2,850.59	.24
Portuguese and Spanish.....	120	2,643.75	17	522.73	3,166.48	.27
Chinese.....	40	751.92	6	191.45	943.37	.08
Total.....	2,689	799,095.31	766	367,875.73	1,166,971.04	100.00

¹ Exclusive of interest, penalties and costs.

BANKS.

Twenty-two banks were in operation during the year. These were distributed as follows: Eight in Honolulu, one each at Schofield and Waipahu, on the island of Oahu; three at Hilo, one each at Honokaa, North Kona, and North Kohala, on the island of Hawaii; one each at Wailuku, Kahului, Paia, and Lahaina, on the island of Maui; and one each at Lihue and Waimea, on the island of Kauai. Two are national banks, namely, one at Honolulu and one on the island of Maui. One of the banks is solely a savings bank, two are solely commercial, and the remainder are both commercial and savings banks.

Deposits in banks since organization of Territorial government.

Fiscal years.	Number of banks.	Commercial deposits Dec. 31.	Savings deposits June 30.	Total.
1901.....	8	\$3,857,413.16	\$804,718.01	\$4,662,131.17
1902.....	9	4,094,919.90	1,073,581.56	5,168,501.46
1903.....	9	3,694,965.00	1,102,707.24	4,797,672.24
1904.....	9	4,159,078.89	1,372,157.00	5,531,235.89
1905.....	9	3,993,052.90	1,695,326.76	5,688,379.66
1906.....	9	5,022,465.26	2,527,943.98	7,550,409.22
1907.....	11	4,966,042.04	2,277,554.40	7,243,596.44
1908.....	11	5,074,836.16	2,588,722.87	7,663,559.03
1909.....	11	6,334,991.42	3,322,827.79	9,657,819.21
1910.....	11	9,033,385.97	4,290,919.57	13,324,305.54
1911.....	16	10,289,707.89	5,020,555.62	15,310,263.51
1912.....	17	12,667,162.39	5,521,973.11	18,189,135.50
1913.....	17	11,641,901.30	5,384,395.72	17,026,297.02
1914.....	18	10,371,874.60	6,275,790.63	16,647,665.23
1915.....	19	12,378,041.53	7,736,569.32	20,114,610.85
1916.....	19	17,317,339.40	9,061,910.28	26,379,249.68
1917.....	22	22,486,524.31	10,305,496.70	32,692,021.01

Savings-bank accounts, by races, June 30, 1917.

Races.	Population, 1916.		Accounts.			Deposits.	
	Estimated.	Per cent.	Number.	Per cent.	Average.	Total.	Per cent.
Japanese.....	93,136	40.00	7,393	23.65	\$115.87	\$856,643.93	8.39
Chinese.....	21,770	9.35	2,724	8.71	267.21	727,891.63	7.13
Hawaiians.....	38,920	16.71	5,329	17.05	99.65	531,028.23	5.20
Portuguese.....	23,650	10.16	4,343	13.99	340.37	1,478,219.27	14.49
All others.....	55,890	23.78	11,470	36.70	576.44	6,611,713.64	64.79
Total.....	232,366	100.00	31,259	100.00	\$26.48	10,205,496.70	100.00

INSURANCE.

An insurance bureau under the treasury department has been in operation 14 years. Statistics for the foregoing period only are available.

Insurance companies pay, in lieu of other taxes, a tax of 2 per cent on gross premiums, less return premiums and reinsurance, and, in the case of life insurance companies, less expenses also. In addition, insurance agents are required to pay certain license fees, and there are also filing and other fees.

The number of insurance companies doing business in the Territory in 1916, the last year, was 98, namely: Fifty fire, 5 fire and automobile; 2 fire, automobile, and marine; 1 fire, automobile, accident and health, fidelity and surety, plate glass, package, and workmen's compensation; 1 fire, automobile, fidelity and surety, plate glass, and workmen's compensation; 4 fire and marine; 10 life; 1 life and acci-

dent and health; 5 marine; 1 marine and automobile; 1 marine, automobile, and property damage; 3 accident and health; 1 accident and health, automobile, burglary, employers' liability, property damage, and workmen's compensation; 1 accident and health, automobile, fidelity and surety; 1 accident and health, automobile, employers' liability, fidelity and surety, plate glass, and property damage; 1 accident and health, automobile, employers' liability, property damage, and workmen's compensation; 1 accident and health, automobile, employers' liability, fidelity and surety, plate glass, property damage, and workmen's compensation; 1 accident and health, burglary, employers' liability, fidelity and surety, and property damage; 1 accident and health, burglary, employers' liability, fidelity and surety, property damage, and workmen's compensation; 1 automobile, employers' liability, fidelity and surety, and plate glass; 1 automobile, employers' liability, and workmen's compensation; 1 burglary, and fidelity and surety; 1 employers' liability and workmen's compensation; 1 fidelity and surety; 2 plate glass. All except two of these are foreign companies.

The statistics are for calendar years.

Insurance written, premiums, and losses paid, calendar year 1916.

Class.	Insurance written.	Premiums.	Renewal premiums.	Losses, claims, etc., paid.
Fire.....	\$39,784,264.66	\$692,232.98		\$53,217.44
Marine.....	99,875,114.35	302,488.43		18,233.73
Life.....	4,068,336.00	182,038.60	\$749,672.47	166,128.69
Accident and health.....		45,701.67		5,329.98
Automobile.....		40,301.09		4,928.18
Burglary.....		676.85		
Employers' liability.....		7,460.13		2,565.00
Fidelity and surety.....		44,073.30		3,779.48
Plate glass.....		2,684.15		316.84
Package.....		206.35		
Property damage.....		3,807.14		979.50
Workmen's compensation.....		101,485.89		18,752.87
Total.....	143,747,715.01	1,423,155.58	749,672.47	274,232.71
Total in 1915.....	114,980,667.14	1,227,172.42	645,315.50	973,928.11
Increase in 1916.....	28,767,047.87	195,983.16	104,356.97	
Decrease in 1916.....				699,695.40

Comparative statement of fire insurance business transacted in the Territory of Hawaii for the calendar years 1903-1916, inclusive.

Year.	Insurance written.	Premiums.	Losses, claims, etc., paid.	Percentage loss to amount insured.	Loss paid for each \$100 premium.
1903.....	\$19,888,471.92	\$364,628.51	\$153,261.17	0.0077	\$42.00
1904.....	20,374,737.37	364,947.07	96,215.63	.0047	26.30
1905.....	22,359,659.00	377,762.00	29,456.00	.0012	7.53
1906.....	21,628,280.95	399,913.91	106,249.64	.0076	42.63
1907.....	23,270,282.12	442,361.19	37,512.67	.0016	8.50
1908.....	25,214,465.13	445,086.44	39,095.52	.0015	8.30
1909.....	26,239,095.88	489,361.49	10,259.71	.0004	2.09
1910.....	26,343,503.77	508,262.80	69,778.62	.0028	12.70
1911.....	26,527,407.86	649,456.92	96,494.35	.0036	17.38
1912.....	27,131,432.65	585,262.56	47,781.56	.0017	8.16
1913.....	26,865,448.73	567,821.25	87,630.79	.0030	15.43
1914.....	29,632,953.11	558,888.90	64,762.95	.0021	11.58
1915.....	36,014,438.62	602,634.14	82,171.21	.0023	13.28
1916.....	39,784,264.66	692,232.98	53,217.44	.0013	7.66
Total.....	370,094,352.47	6,938,650.16	1,031,888.26	.0028	\$14.86

¹ Average.

COMMERCE.

Imports and exports, by fiscal years, since organization of Territorial government.

Years.	Imports.			Exports.			Total imports and exports.
	United States. ¹	Foreign countries.	Total.	United States.	Foreign countries.	Total.	
1901.....	(²)	\$2,826,633	\$2,826,633	\$27,935,885	\$117,468	\$28,053,843	\$30,880,476
1902.....	(²)	3,036,583	3,036,583	24,730,060	63,547	24,793,607	27,830,190
1903.....	\$12,675,026	3,142,013	15,817,039	25,242,869	32,569	25,275,438	42,092,477
1904.....	11,987,050	3,797,641	15,784,691	25,157,255	47,520	25,204,875	40,989,568
1905.....	11,703,519	3,014,964	14,718,483	36,114,985	59,541	36,174,526	50,893,009
1906.....	13,224,566	3,275,242	16,499,808	26,884,210	56,313	26,940,523	43,440,331
1907.....	14,225,210	4,151,709	18,376,919	29,134,467	229,914	29,364,381	47,741,300
1908.....	15,303,325	4,682,399	19,985,724	41,640,815	597,540	42,238,455	62,224,179
1909.....	17,391,406	4,033,574	21,424,980	40,437,353	84,153	40,521,504	61,946,484
1910.....	20,531,913	4,006,334	25,138,247	46,183,649	302,763	46,486,412	71,624,659
1911.....	22,322,121	5,190,449	27,512,570	41,207,941	730,642	41,938,583	69,451,153
1912.....	23,095,878	5,598,444	28,694,322	55,076,165	373,273	55,449,438	84,143,760
1913.....	29,129,400	6,873,531	36,002,940	42,713,294	758,646	43,471,940	79,474,880
1914.....	29,267,699	6,282,558	35,550,257	40,678,827	915,245	41,594,072	77,144,329
1915.....	20,348,832	5,716,023	26,064,855	62,306,507	61,849	62,368,356	88,433,211
1916.....	28,029,681	6,068,539	34,098,210	64,445,631	225,221	64,670,852	98,769,062
1917.....	39,875,390	6,482,951	46,358,341	74,480,119	635,864	75,115,983	121,474,324
Total.....	311,534,825	76,355,777	387,890,602	705,370,081	5,292,757	710,662,788	1,098,553,390

¹ These figures include specie except for the last six years, but since 1903 most of the specie has been handed through the post office by registered mail, and the amount thereof is not included in this table. During the last fiscal year the shipments of gold and silver coin other than those made through the mails were: From the United States, \$2,993,800; from foreign countries, nothing; to the United States, \$309,815; to foreign countries, \$751,501; total, \$4,055,116.

² Not kept.

Imports and exports, by countries, fiscal years 1916 and 1917.

Countries.	Imports.		Exports.	
	1916	1917	1916	1917
Australia and Tasmania.....	\$255,060	\$164,571	\$10,832	\$8,064
Other British Oceania.....	43,455	70,166	23,115	76,194
British India.....	1,183,878	1,130,449	23	453
Canada.....	13,718	28,405	54,323	159,707
Chile.....	681,487	899,358	.....	40
France.....	3,906	7,902	.....	.....
Germany.....	170	2,507	.....	.....
Hongkong.....	380,192	428,126	3,317	5,348
Japan.....	3,113,622	3,406,571	50,121	203,752
United Kingdom.....	73,160	86,662	454	7,744
Other foreign.....	319,881	258,234	83,036	173,942
Total foreign.....	6,068,539	6,482,951	225,221	635,864
United States.....	28,029,681	39,875,390	64,445,631	74,480,119
Grand total.....	34,098,210	46,358,341	64,670,852	75,115,983

Domestic exports, by articles, fiscal years 1916 and 1917.

Articles.	United States, 1917.		Foreign, 1917.		Total, 1917.		Total, 1916.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Sugar.....	Pounds.		Lbs.		Pounds.		Pounds.	
Raw.....	1,127,825,256	\$60,137,962	.....	.....	1,127,825,256	\$60,137,962	1,110,134,528	\$52,507,265
Refined.....	34,779,800	2,603,202	32,741	\$2,108	34,812,541	2,605,310	27,033,700	1,902,280
Coffee, raw.....	1,980,722	296,378,584	95,190	2,565,471	2,075,912	2,991,588	2,717,023	418,607
Fruits and nuts ¹.....	.....	8,179,178	.....	176,217	.....	8,355,395	.....	6,889,705
Rice.....	3,527,846	165,779	.....	.....	3,527,846	165,779	3,671,943	143,120
Eldes.....	1,481,717	295,216	3,120	744	1,484,837	296,965	1,411,873	259,623
Other.....	.....	2,690,282	.....	350,549	.....	3,040,826	.....	2,493,691
Total.....	1,169,595,341	74,367,907	620,610	624,808	1,170,215,951	74,992,805	1,144,999,067	64,614,331

¹ Mostly pineapples.

Customs receipts, fiscal years, since organization of Territorial government.

Fiscal year.	Amount.	Fiscal year.	Amount.
1900 (half of June).....	\$45,523.99	1910.....	\$1,575,319.15
1901.....	1,219,618.93	1911.....	1,654,781.34
1902.....	1,327,518.23	1912.....	1,643,197.37
1903.....	1,193,677.83	1913.....	1,869,513.89
1904.....	1,229,492.15	1914.....	1,184,416.12
1905.....	1,043,404.49	1915.....	1,019,534.63
1906.....	1,218,764.13	1916.....	1,161,061.12
1907.....	1,458,843.48	1917.....	1,109,084.80
1908.....	1,550,157.32		
1909.....	1,396,379.91	Total.....	22,900,258.79

The following tables do not include interisland traffic, which is extensive and all in American vessels, or American transports, naval vessels, and vessels calling for bunker coal, of which many call at Hawaiian ports.

Number and tonnage of vessels, by fiscal years, since organization of Territorial government.

Year.	Entered.		Cleared.	
	Number.	Tons.	Number.	Tons.
1901.....	705	952,504	701	943,021
1902.....	593	917,089	597	918,547
1903.....	551	980,847	552	971,339
1904.....	488	933,847	467	838,627
1905.....	486	982,116	452	972,279
1906.....	453	1,013,841	450	1,012,367
1907.....	428	1,049,836	439	1,046,141
1908.....	416	1,075,939	412	1,089,328
1909.....	391	1,159,118	394	1,159,749
1910.....	437	1,308,801	427	1,292,875
1911.....	427	1,343,876	431	1,347,371
1912.....	431	1,370,315	429	1,359,109
1913.....	483	1,582,255	476	1,577,102
1914.....	447	1,660,888	445	1,642,558
1915.....	456	1,605,925	436	1,574,845
1916.....	453	1,437,395	461	1,489,617
1917.....	489	1,374,511	479	1,300,821
Total.....	8,134	20,749,303	8,078	20,684,216

Value carried by American and foreign vessels.

Vessels.	Fiscal year 1916.			Fiscal year 1917.		
	Imports.	Exports.	Total.	Imports.	Exports.	Total.
American.....	\$29,425,654	\$64,495,108	\$93,920,762	\$41,084,066	\$74,638,677	\$115,722,743
Foreign.....	4,672,556	175,744	4,848,300	5,274,275	477,306	5,751,581
Total.....	34,098,210	64,670,852	98,769,062	46,358,341	75,115,983	121,474,324

Vessels, by ports, fiscal year 1917.

Ports.	In coastwise trade. ¹				In foreign trade.			
	Entered.		Cleared.		Entered.		Cleared.	
	Number.	Tons.	Number.	Tons.	Number.	Tons.	Number.	Tons.
Honolulu.....	280	724,607	277	810,842	140	538,783	126	478,129
Hilo.....	48	77,557	36*	64,370	0	0	1	1,105
Kahului.....	15	17,948	17	21,422	1	1,778	0	0
Kona.....	7	4,708	14	9,482	6	4,953	0	0
Mahukona.....	3	2,177	9	7,471	0	0	0	0
Total.....	333	828,997	353	913,587	156	545,514	126	477,234

¹ Includes vessels in traffic between this Territory and the mainland, but not vessels exclusively in traffic between the islands.

Transports and vessels calling for bunker coal or fuel oil not included in above.

TRANSPORTATION FACILITIES.

The progress of the Territory of Hawaii is peculiarly dependent upon the development of transportation facilities, due to the fact that it is situate in the mid-Pacific, subdivided into a number of islands and compelled to look to the continental United States as a market for its products and also a supply depot for its needs.

The tourist business is yearly showing a large increase and as a consequence closer attention is of necessity paid to this phase of transportation. (See also "Harbors.")

The principal features in the matter of transportation are (1) interisland traffic; (2) traffic between the Territory and the mainland; (3) trans-Pacific traffic, making Honolulu a port of call, which item is anticipated to show a large increase due to the opening of the Panama Canal and at the conclusion of hostilities in Europe; (4) overland traffic on the several islands.

INTERISLAND TRAFFIC.

The Interisland Steam Navigation Co. (Ltd.) conducts the major portion of the interisland traffic, operating a fleet of 17 steamers, varying in length from 117.5 to 252 feet, and from 10 to 18 feet draft; from 263 to 1,566 gross tons and from 192 to 940 net tons. The total tonnage is 11,178 gross and 7,190 net. During the fiscal period covered in this report this company carried 79,215 passengers and 402,093 tons of freight, an increase of 13,426 passengers and a decrease of 43,074 tons of freight as compared with the previous period.

During the year this company suffered the loss of two of her steamers; the Maui, 404 tons net, being wrecked off the coast of Hawaii, and the Hamakua, 341 tons net, abandoned at sea on account of fire.

The Oahu Shipping Co. operates a fleet of seven steamers, which carried approximately 40,000 tons of freight during the year. No passenger traffic is handled by this company.

TRAFFIC WITH THE MAINLAND.

The American-Hawaiian Steamship Co., which has been in the Hawaiian trade since January, 1901, has handled a majority of the freight traffic between the Territory and the Atlantic coast, either by way of the Panama Canal or overland. The company then made arrangements with the transcontinental railroads for the handling of sugar, which it had contracted to deliver in New York and Philadelphia. The company has retained two of its largest steamers—the *Tewan* and *Mexican*, each with a capacity of 14,000 tons—for the transportation of this sugar from Hawaiian Island ports to San Francisco, from which port it is transferred to the railroads for delivery in the eastern market. According to present estimates, approximately 280,000 tons of sugar will be shipped this year by these two vessels. The abandonment of the New York-Hawaiian Island service meant also the abandonment of the Seattle and Tacoma-Hawaiian Island service, as the company did not feel justified in maintaining a service between Hawaii and the Northwest without its direct connection with the Atlantic seaboard by way of the Panama Canal. It is the intention of the company to resume its direct service from New York to the islands, from Seattle and Tacoma to the islands and return, following the close of the war and a resumption of normal conditions. The fleet of the American-Hawaiian Steamship Co. consists of 19 vessels, of which 2 are engaged in the Hawaiian Island trade, as stated above, the remaining 17 running to Europe and to South American ports from New York City.

The Matson Navigation Co. handles the larger portion of traffic, freight and passenger, between the Territory and the Pacific coast. It operates a fleet of nine steamships between Puget Sound ports, San Francisco, and Hawaiian ports of call. A regular passenger and freight service is maintained between San Francisco and Honolulu on a 28-day schedule, which allows for weekly sailings in either direction, the following vessels being operated in this service: *Matsonia*, 17,250 tons; licensed capacity, 329 passengers; *Wilhelmina*, 13,000 tons; licensed capacity, 223 passengers; *Manoa*, 13,000 tons; licensed capacity, 90 passengers; *Mau*, 17,250 tons; licensed capacity, 315 passengers. The *Mauri* and *Matsonia*, after arriving at Honolulu, make side trips to Hilo and return, while the *Manoa* and *Wilhelmina* make side trips to Kahului and return, giving these ports a biweekly service direct from San Francisco via Honolulu. The freight service of this line consists of the steamships *Lurline*, *Hyades*, and *Enterprise*; auxiliary power vessels, *R. P. Rithet* and *Annie Johnson*. The *Enterprise* is in direct service between San Francisco and Hilo and does not call at other island ports. The balance of the vessels in the freight service call at various island ports, including Port Allen, Kahului, Kaanapali, Hana, Mahukona, and Hilo.

The Great Northern Pacific Steamship Co. renewed for the tourist season of 1916 and 1917 their service in the Hawaiian trade with the steamship *Great Northern* on November 14, 1916, continuing every 20 days, approximately, until April 22, 1917, leaving Honolulu, making in all nine trips.

This 15,000-ton steamer was built at a cost of \$3,000,000 and has dimensions of 524 feet in length, 63 feet in width, and 50 feet in

depth, has triple Parsons turbine engines, and holds the record for speed, her trip of December 6, 1915, Honolulu to San Francisco, breaking all records by 24 hours.

This steamer carried on her inward voyages a total of 3,106 passengers and outward 3,920, making an average of 390 passengers each way. Freight carried averaged 1,810 tons each way.

It is anticipated the business will be resumed in October, 1917, for permanent service, the schedule to cover the ports of San Francisco, San Pedro, Hilo, and Honolulu.

The Standard Oil Co. operates five steamers between the mainland and the Territory. These steamers call at Honolulu and Kahului, carrying bulk cargoes of 304,630 barrels of fuel and refined oils and also cases of package goods.

The Associated Oil Co. operates three vessels, and during the year carried 167,674 barrels of fuel oil, 506,564 gallons of gasoline, 277,145 gallons of distillate, 55,747 gallons of kerosene, 5,779 gallons of lubricating oil.

The Union Oil Co., of California, operates six vessels, with capacities varying from 16,000 to 60,000 barrels. During the year they carried 521,990.55 barrels to Honolulu, Kahului, and Hilo.

A number of American vessels visit the several Hawaiian ports with lumber and other freight from the Pacific coast.

THROUGH SERVICE.

The Pacific Mail Steamship Co., which sold its trans-Pacific fleet of steamers in August, 1915, and withdrew from the Pacific, resumed this service under new management, commencing the 3d of September, 1916, with a fleet of three steamers, the *Ecuador*, *Venezuela*, and *Colombia*. The steamers, built in Holland, were acquired by the company and put in the foreign trade under the American flag. They are regularly calling at the port of Honolulu once a month outward and homeward.

The China Mail Steamship Co. (Ltd.), which is operating the former Pacific Mail steamer *China* on the old Pacific Mail route, has announced the purchase of the American steamer *Congress*, which is to be rebuilt and remodeled, and the company hopes to have the vessel in service toward the end of 1917. It is the intention of the company to rename the vessel *Nanking*.

The Toyo Kisen Kaisha of Japan now operates a fleet of nine steamers between Japan, Honolulu, San Francisco, and South American ports, all of which vessels make regular calls at Honolulu.

The tonnage of the vessels and also the passenger capacity are as follows: *Nippon Maru*, 11,000 tons, licensed capacity 514 passengers; *Persia Maru*, 9,000 tons, licensed capacity 412 passengers; *Shinyo Maru*, 22,000 tons, licensed capacity 1,022 passengers; *Tenyo Maru*, 22,000 tons, licensed capacity 1,063 passengers; *Korea Maru*, 18,000 tons, licensed capacity 832 passengers; *Siberia Maru*, 18,000 tons, licensed capacity 833 passengers; *Kiyo Maru*, 17,200 tons, licensed capacity 568 passengers; *Anyo Maru*, 18,500 tons, licensed capacity 750 passengers; and *Seiyo Maru*, 14,000 tons, licensed capacity 597 passengers. During the last year the Toyo Kisen Kaisha has purchased and placed in operation the *Korea Maru* and *Siberia Maru*, which formerly belonged to the Pacific Mail Steamship Co.

Of the nine steamers above referred to, six are on the San Francisco-Orient run, and the balance, namely the *Kiyo Maru*, *Saiyo Maru*, and *Anyo Maru*, are on the South American run. All of the South American steamers call at the port of Hilo on the outward voyage from Japan.

The Osaka Shosen Kaisha of Japan service has been withdrawn and at the present time no vessels of this line are calling at this port. It is not known when this service will be resumed.

The Canadian-Australian Royal Mail Line continues to operate but two passenger and freight steamers on the Sydney, Auckland, Suva, Honolulu, and Vancouver route. These vessels are on a four-week schedule each way. One steamer has a gross tonnage of 13,500 tons, is 543 feet in length, and has accommodations for 667 passengers; the other a gross tonnage of 8,075 tons, is 450 feet in length, and has accommodations for 400 passengers. It is asserted that at the conclusion of the European war this company will operate an additional steamer, the *Avenger*, about 1,600 tons larger than the *Niagara*, and revert to its old schedule in effect prior to the war.

The Oceanic Steamship Co. operates three steamers on a three-week schedule between San Francisco and Sydney, Australia, making Honolulu and Samoa en route and consuming 48 days on the round trip. Two steamers have a gross tonnage of 6,253 tons; the other a gross tonnage of 5,789 tons. The three steamers are each 400 feet long and have accommodations for 250 passengers. The Honolulu-San Francisco service has been discontinued.

The Nippon Yusen Kaisha Steamship Co. operates a line of freight steamers between New York and Japan by way of the Panama Canal, all of which touch at Honolulu on their way to the Orient for coal and supplies. No freight or passengers are taken from this port.

The Nederland Royal Mail and Rotterdam Lloyd Joint Service operate eight steamers on a 40-day service between Batavia, Java, and San Francisco, calling on their regular service at Honolulu, Yokohama, Kobe, Nagasaki, Shanghai, Hongkong, Singapore, and Batavia fortnightly. These steamers range from 3,000 to 5,000 tons net; average length, 400 feet; passenger accommodations, from 100 to 250 persons in all classes.

A number of sailing vessels continue to bring general merchandise and coal from foreign ports.

STEAM RAILROADS.

Statistics of steam railroads.

Islands.	Number.	Track.	Increase.	Gauge.	Rolling stock.		
					Locomotives.	Passenger cars.	Freight cars.
		Miles.		Ft. In.			
Oahu.....	1	130.01	4.96	3 0	10	50	608
Hawaii.....	1	121.85	2	3 0	16	16	165
MauI.....	1	41.08	4.19	4 8 1/2	1	1	143
Kauai.....	1	19.22	7.22	3 0	1	.....	24
Total.....	7	312.16	16.37	.....	52	72	1,103

Statistics of steam railroads—Continued.

Islands.	Freight carried.	Passengers carried.	Bonds outstanding.	Rate of interest.	Capital stock.
Oahu.....	895,508	1,122,308	\$2,001,000	<i>Per cent.</i>	\$5,150,000
Hawaii.....	224,064	372,281	2,350,000	5	3,964,900
Maul.....	287,963	127,201		5	300,000
Kauai.....	16,211		469,000	6	500,000
Total.....	1,423,746	1,621,685	4,810,000		9,904,900

PRIVATE (PLANTATION) RAILWAYS.

Islands.	Number.	Track.	Increase.	Rolling stock.		
				Locomotives.	Passenger cars.	Freight cars.
Oahu.....	9	187.25	1.00	32	9	2,651
Hawaii.....	12	101.41	6.07	29	1	1,662
Maul.....	6	148.80	.87	25		2,582
Kauai.....	9	187.62	8.70	33		3,027
Total.....	36	595.08	16.64	119	10	9,922
Grand total.....	43	907.24	33.01	171	82	11,017

STREET RAILROADS.

The Honolulu Rapid Transit & Land Co. controls and operates the only street railway system in this Territory, same being located in the city of Honolulu. It is an electric line, partly single and partly double track. During the year the company expended for betterment of the system \$27,664.26. Its outstanding capital stock is \$1,600,000 and bonds \$528,000. Its gross income for the calendar year of 1916 was \$669,981.74, an increase of \$70,417.29 over that of the preceding year. Its disbursements were \$585,668.41, an increase of \$13,293.11. The number of fare passengers carried was 13,213,700, an increase of 1,391,431 over that of the previous year; the number of free passengers carried, being principally policemen, letter carriers, and firemen, was 161,105, an increase of 44,480. School children are carried at half rates. The car mileage was 2,019,936.19. The franchise for the construction, maintenance, and operation of a street railway system in the district of South Hilo, island of Hawaii, which was ratified by Congress on August 1, 1912, and subsequently amended so as to extend the time in which construction shall be commenced, will probably be the subject of further amendment during the coming session of Congress. It is expected that work will be commenced on this road by 1918.

LIGHTHOUSES.

Honolulu is the headquarters of the nineteenth lighthouse district, which embraces all of the islands comprising the Territory of Hawaii and certain other islands in the Pacific Ocean.

At the close of the year there were in commission 1 hyperradiant light, 2 second-order lights, 1 third-order light, 2 fourth-order lights,

1 fifth-order light, 40 lens-lantern lights, 2 electric lights, 6 automatic acetylene gas buoys, and 1 lighthouse vessel, the tender *Columbine*.

On the island of Hawaii materials and apparatus have been purchased and work is under way changing Kauhola Point light station from a lens-lantern light to a fourth-order incandescent oil-vapor revolving flash light. At Alia Point a structural steel tower has been erected, from which it is proposed to exhibit an automatic acetylene light of a higher candlepower than the lens lantern now used at that station. Both of these projects will be completed during the early part of the coming fiscal year.

On the island of Maui an automatic acetylene gas light was established at Kipahulu; a pyramidal concrete tower was erected at Lahaina, and the old frame structure from which the light was formerly shown was dismantled. Extensive improvements were made at Pauwela and Nakalele Head light stations. Steps have been taken to acquire a site for the establishment of an automatic acetylene light at Hanamanioa, and apparatus and equipment are on hand for the gas and bell buoy that it is proposed to establish at Waihee Reef upon the receipt of the buoy.

On the island of Kauai an automatic acetylene light was established at Kukii Point, Nawiliwili Harbor.

On the island of Oahu steps have been taken toward the acquisition of a site for the establishment of an automatic acetylene light at Kaena Point.

TELEGRAPHS AND TELEPHONES.

In addition to the cable connection between both shores of the Pacific Ocean, which has been in operation for a number of years, there are two powerful wireless plants which link the Territory to the continental United States and the Orient, and also form connections in the world-girdle wireless system. There is also in operation between the various islands a wireless system.

Since April 6, 1917, the date of the declaration of a state of war between the United States and the Imperial German Government, the United States naval authorities have taken full possession of all radio plants in the Territory and are at present operating the Mutual, Federal, and Marconi stations under the direction of the United States Naval Communication Service with a full naval personnel. A strict censorship, also under the direction of the United States Naval Communication Service, has been maintained at the cable office.

On March 1, 1901, the Mutual Telephone Co. commenced the operation of its wireless system connecting the islands of Oahu, Hawaii, Kauai, Maui, and Molokai, and has continued ever since. The success of the interisland wireless system is due to a large extent to the excellent telephone service that the five larger islands are enjoying. Messages are telephoned direct to the party for whom intended from the stations on the various islands, with the exception of a direct telegraph line connecting the city of Hilo, Hawaii, with the wireless station of that island at Kawaihae. In the cities of Honolulu and Hilo messages are delivered by messenger boys. In addition to the interisland service, communication is maintained between the Oahu station of this system, situated at Wahiawa, and ships at sea, as well as with the United States naval station at

Tutuila, Samoa, and also with the radio station at Apia, Samoa (British), and by relay with this station with the French possession of Tahiti (Society Islands). The stations of this company are located as follows: One of 2-kilowatt and one of 10-kilowatt power at Wahiawa, Oahu; one of 2 kilowatts at Lihue, Kauai; one of 2 kilowatts at Lahaina, Maui; one of 2 kilowatts at Kawaihae, Hawaii; and one of one-half kilowatt at Kaunakakai, Molokai.

The Federal Wireless Telegraph Co. began commercial operation with San Francisco in August, 1912, and has been in continuous operation with that city since that date. This company has one station at Heeia, on the island of Oahu, about 12 miles from the city of Honolulu. A city office is maintained in Honolulu; a telegraph wire connects Honolulu with the wireless station at Heeia. The Heeia station has been in direct communication with Arlington, Va., also Tuckerton, N. J., a distance of approximately 5,000 miles. This station has also been in communication with Darien, Panama Canal, and, on one occasion, heard a station in Germany transmitting messages to Tuckerton, N. J., which is approximately 10,000 miles from Honolulu. It is also used for communicating with ships at sea, and has been in direct communication with ships equipped with Federal apparatus at a distance of 1,900 miles, daylight. This station has a radius of about 6,000 miles for daylight work, for which 30 to 50 kilowatt power is used. There are three towers—one is 608 feet high and the other two are 438 feet each. The type of antenna in use is known as the triangular flat-top and the system is known as the Poulsen wireless system. Daylight, night-letter, and week-end letter services are maintained.

The most important undertaking by the Marconi Wireless Telegraph Co. during the past year was the establishing of a regular commercial service between the Kahuku station, on the island of Oahu, and the station at Funabasha, Japan, the latter having been placed in commission by the Japanese Government. This service was opened to the public on November 15, 1916. The circuit readily developed to that point of efficiency where it was necessary to provide for additional facilities in order to give the traffic proper and prompt handling, resulting in an order being issued by the executive office in New York for the opening of the Koko Head station and the installation of the latest automatic equipment. This was well under way when war was apparent, and the taking over of the company's properties on April 6, 1917, by the Federal Government stopped all progress. Plans are under way, however, to resume just as soon as the company again gets possession of its stations on this island.

The distance is the greatest ever undertaken in the regular traffic handling, being some 4,200 miles, and will be worked direct. With 1,200 horsepower or over 350 kilowatt power available at Kahuku and the sister stations at Bolinas, Cal., and Funabasha, Japan, it is the intention to handle the traffic as much as possible direct between California and Japan, an accomplishment that is believed can be maintained a good portion of the time, thereby relieving the necessity for relaying the through business at Kahuku, and which would mean the direct handling of traffic nearly 5,000 miles.

The Koko Head and Kahuku stations were constructed about 50 miles apart for the purpose of ultimately working both directions at the same time by means of the automatic equipment that was being

installed in the former station. When this is accomplished the entire operating force at Kahuku will be transferred to Koko Head and the transmission at the Kahuku plant will be governed by distant control by means of land line connections.

The night-letter and week-end-letter service has developed to such an extent that fully three-fourths of the traffic is made up of that class of business and has enabled many of the larger firms to dispense with their code books. A number of new stations were completed the past year in Alaska. These, with the different other shore and high-power stations, now number close to 25 in the Pacific, embracing Alaska to southern California, Hawaii, and Japan.

The Mutual Telephone Co. (Ltd.), besides operating an inter-island wireless service, as described herein, operates the principal telephone system on the island of Oahu, and now has in operation 33 miles of cable conduit, 90 miles of cable, and 1,150 miles of open wire. It is operating a total of 6,971 instruments as of December 31, 1916, together with 475 time clocks and time stamps, and 97 Denio fire-alarm boxes. On the island of Maui the Maui Telephone Co. has in operation 850 instruments, with 1,762 miles of wire; on the island of Hawaii the Kohala Telephone Co. (Ltd.) has in operation 101 instruments, with 225 miles of wire; on the same island the Hawaii Telephone Co. has in operation 1,243 instruments, with 2,400 miles of wire and 22,000 feet of underground cable ducts; and on the island of Kauai the Kauai Telephone Co. has in operation 238 instruments, with 433 miles of wire, making a grand total of 90 miles of cable duct, 5,970 miles of open wire, and 9,403 instruments for the five telephone companies.

POSTAL SERVICE.

There are 92 post offices, namely, 1 first class, 2 second class, 10 third class, and 79 fourth class.

There are 18 steamboat contract routes, covering 24,533.95 miles; 24 star routes, covering 479.32 miles; 24 mail messenger routes, covering 51.73 miles; 10 railroad routes, covering 188.91 miles; 28 permitted service routes, covering 40.70 miles; 6 foreign steamboat routes, covering 31,990 miles; and 1 electric car route, covering 4.78 miles, making a total of 111 routes, covering 56,289.39 miles, at an estimated cost of \$167,168.

Review of the business done by the Honolulu post office during the fiscal year ended June 30, last, sets forth clearly facts that are both interesting and important.

Postal receipts are among the most certain indices to general business conditions. The total receipts of the Honolulu office during the last four fiscal years were: 1914, \$137,632.31; 1915, \$140,219.19; 1916, \$158,659.10; and 1917, \$176,557.24.

The increase of \$17,898.14 for 1917 over 1916, and the steady increase during the four-year period, reveals interesting expansion of the commercial importance of Honolulu and the Hawaiian Islands.

It is a significant fact that the increase of receipts continued during April, May, and June, the months during which America has been at war with Germany. The beginning of hostilities, in a large measure, stopped tourist travel. It was the demand of the business community that continued to swell our stamp sales.

In the detail of postal operation here, the statistics of parcel-post traffic and money-order business stand out as most significant.

Honolulu "clears" the entire money-order business of the islands. The total of domestic and international money orders issued by all Hawaiian post offices during the last fiscal year amounted to \$3,550,320.34. Of this sum \$1,204,113.56 represent international, or foreign, orders sold. Of this latter sum, \$1,196,038.30 were dispatched to Japan, in 43,042 money orders. Of 43,536 money orders sold in the islands during the year, 43,042 were Japanese. The value of other foreign orders sold is as follows: Hongkong, \$2,027.94; New South Wales, \$2,723.98; Tasmania, \$146.99; Victoria, \$744.25; Queensland, \$301.06; South Australia, \$94.09; Western Australia, \$170.38; New Zealand, \$1,866.57.

To offset the \$1,204,113.56 which left the country via money-order channels only \$15,277.58 were received in money orders from abroad.

In this connection the figures on the United States postal savings business at Honolulu show a startling contrast between that which we may call exports of Hawaiian wages through postal channels and such surplus of the same as remains here in the Government's keeping. Deposits in the postal savings banks of the Honolulu post office June 30, 1917, amount to \$56,559.23. This constitutes by far the bulk of postal savings for the islands, and the greater part has been deposited by soldiers.

Wage earners of foreign birth, in short, do not go into the postal savings banks here as they do elsewhere in the United States. It has been observed in other American communities having a large alien population that safety is the first consideration with the foreign wage earner in placing his savings. The European war multiplied the danger of Atlantic transportation, with the result that huge sums that formerly went from American industrial communities to government banks abroad were diverted to our Government Postal Savings System. Many of these alien workers, therefore, learned that their savings were as safe, or safer, in the hands of the United States Government than in the keeping, for instance, of the Government banks of Italy or Greece.

Postal savings deposits June 30, 1916, were \$36,041.51, as compared with \$56,559.23, as stated above, for June 30, 1917. The year's gain, therefore, is \$20,517.72.

The growth of the parcel-post service in Hawaii has been remarkable. A 15-day count of parcels handled between October 1 and 15, 1916, brought out the facts that 39,483 parcels, weighing 162,149 pounds, passed through this office. A similar count made during the first 15 days of April of this year shows a total of 48,831 parcels, weighing 213,016 pounds. The increase in number of parcels handled was 9,348; in weight, 50,867 pounds.

The parcel post has become of peculiar and vital importance to these islands. It is an important link in the chain that each year binds the commerce of Hawaii Territory more and more closely to that of continental United States. It makes the commercial, as well as the political, union of these islands in the mid-Pacific with their parent Nation on the mainland more secure.

Upon preferred classes of merchandise the parcel post operates as a check upon transportation charges, both between the mainland and the islands and in the interisland traffic. The islands owe a great

deal to the energy and business acumen displayed in the administration of the Postal Service during the last five years, through which the development of the parcel post has been brought about.

The public in Honolulu is using the insurance and C. O. D. privileges on an increasing scale, as is shown by statistics we now have in hand. Thus insured parcels mailed at this office numbered 16,470 for the year ending June 30, 1916, and 33,063 for the year ending June 30, 1917. Parcels mailed C. O. D. here aggregated 2,951 in the fiscal year 1916 and 5,102 in the fiscal year 1917.

A degree of antagonism to the parcel post may still persist here among retail merchants. On this matter is cited the fact that as a distributing point for mailable merchandise within the Territory Honolulu has a large advantage over all mainland cities. The latter are compelled to pay the eighth-zone rate, 12 cents a pound, whereas nearly all points upon the islands are reached under the second-zone rate, 5 cents for the first pound and 1 cent for every additional pound. The third-zone rate covers the southern half of Hawaii, including Hilo, and amounts to 6 cents for the first pound and 2 cents for every additional pound. In short, Honolulu merchants are in a position themselves to do most of the mail-order business for the Territory. They have already made a good beginning.

The great need of the Honolulu post office at this time is an up-to-date, commodious mailing room, equipped with modern devices for expediting the handling of mail. This is in prospect of realization within the reasonably near future. The urgent need has been represented both to the Post Office and Treasury Departments, for the proper transaction of the postal business of this city, and of pressing the construction of the new Federal building to completion at the earliest possible date.

POPULATION, IMMIGRATION, AND LABOR.

See "Schools" for pupils by races, ages, etc., in public and private schools for different years; "Taxation" for amount of taxable property owned and income taxes paid by different races; "Public lands" for homesteads taken by different races; "Banks" for amounts of savings deposits by different races; "Vital statistics" for births, marriages, and deaths; and "Courts" for percentages of convictions among different races.

The estimated population, including that of the Army and Navy, on June 30, 1917, was 250,627, an increase of 58,718, or 30.59 per cent since the census of 1910. The estimated population of Honolulu, the capital of the Territory, is 71,950. The following table shows the population by races, as near as can be estimated, as of June 30, 1917:

Estimated population, June 30, 1917.

Races.	Census Apr. 15, 1910.	Estimated June 30, 1917.	Races.	Census Apr. 15, 1910.	Estimated June 30, 1917.
Hawaiian.....	26,041	23,460	Chinese.....	21,674	22,100
Part Hawaiian.....	12,506	15,850	Japanese.....	79,674	102,479
Portuguese.....	22,803	22,990	Filipinos.....	7,984	19,100
Spanish.....	1,990	2,920	All others.....		6,830
Porto Rican.....	4,890	5,240			
Other Caucasian.....	14,867	30,118	Total.....	191,909	250,627

The principal changes are shown in the following table of steerage arrivals and departures and of births and deaths for the seven complete fiscal years since the last census. Other changes are in the arrivals and departures of persons in the United States military and naval services, the changes for the two months and a half between the taking of the last census and the beginning of the first of these six fiscal years, and the cabin arrivals and departures, for which the statistics are only approximate.

The only decrease is shown in pure Hawaiians, due to the excess of deaths over births. The increase in part Hawaiians is entirely due to the excess of births over deaths. The same is true of the Portuguese, Porto Ricans, other Caucasians, and the Chinese. The Japanese have increased by the excess of arrivals over departures and of births over deaths, the latter contributing far the larger portion of the increase. The increase of Filipinos is due largely to the excess of arrivals over departures. Among all others the small increase is due to the excess of births over deaths.

Steering arrivals and departures and births and deaths, 7 fiscal years since census of April, 1910.

	Hawaiian.	Part Hawaiian.	Portuguese.	Spanish.	Porto Rican.	Other Caucasian.	Chinese.	Japanese.	Filipino.	All other.	Total.
Arrivals:											
1911.....			601	908		10	553	2,248	2,209	206	6,765
1912.....			882	911	1	270	412	3,600	3,038	743	9,587
1913.....			382	2,422		94	586	6,015	5,749	866	15,086
1914.....			206	25		137	552	4,563	3,190	659	9,243
1915.....			112	28	7	163	335	3,180	1,244	705	5,760
1916.....			180	4		170	563	4,165	1,723	877	7,441
1917.....			159	15		17	471	4,029	2,932	720	8,343
Total arrivals.....			2,494	4,309	8	803	3,652	26,729	20,123	4,466	62,574
Births:											
1911.....	592	467	700	78	232	208	423	1,726	37	46	4,494
1912.....	649	626	784	121	219	224	444	2,021	38	52	5,147
1913.....	574	637	841	170	220	265	499	2,280	92	70	5,583
1914.....	586	708	911	235	216	260	548	3,089	154	69	6,766
1915.....	533	788	833	266	176	315	607	4,608	219	116	5,607
1916.....	617	833	946	265	226	328	656	3,682	251	121	7,899
1917.....	597	917	971	199	191	378	680	4,913	346	168	9,365
Total births.....	4,148	4,963	6,006	1,219	1,490	1,993	3,846	22,202	1,127	642	47,786
Total arrivals and births.....	4,148	4,963	8,490	5,528	1,498	2,796	7,498	48,931	21,250	5,108	110,310
Departures:											
1911.....			624		232	651	927	3,491	482	399	6,798
1912.....			530	524	12	127	747	3,490	154	729	6,358
1913.....			939	1,072	33	138	813	3,545	344	833	7,789
1914.....			919	754	108	159	728	3,778	693	1,014	8,080
1915.....			468	447	50	171	645	3,448	673	738	6,069
1916.....			476	496	210	10	694	3,083	697	633	6,211
1917.....			367	1,003	41	61	419	3,448	1,130	733	7,302
Total departures.....			4,281	4,313	684	1,327	4,883	24,269	4,160	5,163	49,086
Deaths:											
1911.....	1,010	172	394	39	101	171	283	1,080	66	70	2,296
1912.....	932	200	344	63	91	163	226	942	69	62	2,071
1913.....	941	178	329	70	67	155	280	1,012	178	72	2,233
1914.....	966	202	346	79	79	204	247	1,266	228	65	2,707
1915.....	888	188	308	62	95	162	276	1,301	209	82	2,556

Steerage arrivals and departures and births and deaths, 7 fiscal years since census of April, 1910—Continued.

	Hawaiian.	Part Hawaiian.	Portuguese.	Spanish.	Porto Rican.	Other Caucasian.	Chinese.	Japanese.	Filipino.	All other.	Total.
Deaths—Continued.											
1916.....	942	275	379	79	107	201	274	1,385	223	75	3,940
1917.....	844	259	277	88	57	210	271	1,246	229	67	3,498
Total deaths.....	6,523	1,454	2,362	430	597	1,266	1,776	8,212	1,187	493	24,300
Total deaths and departures.....	6,523	1,454	6,643	4,743	1,281	2,593	6,659	32,481	5,347	5,661	72,355
Net gain.....		3,509	1,847	895	217	203	839	16,450	15,903		39,853
Net loss.....	2,375									553	2,928

Steerage arrivals and departures for the year ending June 30, 1917..

Races	Arrivals.						Departures.						Increase (+) or decrease (-).																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
	(Coast)			Orient.			Total.			Coast.				Orient.			Total.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
	Men.	Women.	Children.	Men.	Women.	Children.	Men.	Women.	Children.	Men.	Women.	Children.		Men.	Women.	Children.	Men.	Women.	Children.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Chinese.....	19	2	1	362	57	30	30	332	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	27	352	10	2

The remarks under this heading appearing in the previous report represent the situation with which the board of immigration, labor, and statistics has been confronted during the past year in regard to the question of European immigration. Conditions governing the possibility of a reopening of negotiations looking toward the introduction of further parties of European immigrants to Hawaii have been, and now are, such as to prohibit any action of this character, and present indications are that no consideration of further work in this direction will be possible until the termination of the war.

The operations of the board, through the department, during the past year have been similar in all respects to those engaging its attention during the last fiscal period. Applications for repatriation have been passed upon from time to time and the board has, during the year, authorized the deportation of 29 families and four single men of Spanish and Portuguese nationality, comprising 108 persons. Of these there were 32 men, 30 women, and 46 children.

Requests for aid, varying in character, have received attention at the hands of the officials of the department and relief afforded to 33 indigent families and 13 single men.

Gathering and compiling the statistical data appearing herein has also engaged the attention of the officials of the department during this time.

In considering the requirements of the board for the ensuing biennial period the legislature of 1917 abolished the office of Commissioner of Immigration and Secretary of the Department, and in lieu of the amount requested for operations during the coming two years appropriated only a small portion of the sum recommended by the board. In view of this action of the legislature and the limited office accommodation now available to the department, owing to the recent transfer to the Federal military authorities of the premises heretofore occupied by it, the board feels that its activities for the time being should be confined to the investigation and consideration of applications for repatriation, as they may arise, and providing for the return to their native countries of those finally found to be permanently incapacitated for work.

The expenditures by the board of immigration, labor, and statistics during the fiscal period were \$24,906.12, partly for salaries, maintenance and operation of the board, but chiefly for the detention and repatriation of immigrants.

The Hawaiian Sugar Planters' Association has introduced Filipinos during the last eight years, as follows:

Filipinos introduced by Hawaiian Sugar Planters' Association.

Fiscal year	Men.	Women.	Children.	Total
1910.....	2,441	180	100	2,721
1911.....	1,916	201	92	2,209
1912.....	2,573	274	196	3,043
1913.....	4,490	768	484	5,742
1914.....	2,511	408	284	3,183
1915.....	885	255	167	1,307
1916.....	1,723	183	112	1,968
1917.....	2,468	169	195	2,832
Total.....	19,007	2,888	1,610	23,005

The following table shows the number of laborers of each race on the sugar plantations each year for a number of years, the number and percentage of non-Asiatics, and the size of the sugar crops. The percentage of non-Asiatics has increased from 12.30 per cent in 1900, the year in which Territorial government was inaugurated, to 37.39 per cent in 1917.

Laborers, by races, on sugar plantations, 1899 to 1902, 1904 to 1917.¹

Races.	1899	1900	1901	1902	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917
American ².....	.....	267	342	.....	509	647	615	621	542	604	627	673	665	687	627	642	706	721
European:																		
British.....	2,153	2,153	2,417	2,000	2,876	2,068	2,266	2,304	2,807	2,226	2,906	226	255	101	73	91	72	44
Portuguese.....	537	537	532	.....	470	451	467	544	428	396	.....	4,174	4,378	3,797	2,646	3,804	3,207	2,023
Other.....	.....	.....	.....	.....	.....	.....	.....	553	750	637	615	920	1,587	1,614	1,310	1,500	1,324	1,006
Spanish.....	1,326	1,326	1,470	1,468	1,312	1,087	1,604	1,356	1,309	1,454	1,399	1,522	1,267	991	968	964	940	586
Hawaiian.....	.....	.....	2,006	2,086	2,006	1,922	2,017	1,878	1,969	2,024	1,969	1,809	1,695	1,453	1,444	1,443	1,268	1,214
Porto Rican.....	.....	.....	.....	.....	.....	.....	.....	.....	141	86	2,269	2,334	4,680	8,009	8,912	8,549	8,845	9,459
Filipino.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Oriental:																		
Chinese.....	5,979	5,909	4,976	3,937	2,778	4,138	3,664	2,248	2,916	2,561	2,761	2,768	2,744	2,561	2,229	2,208	1,997	2,129
Japanese.....	26,644	26,664	27,587	31,029	32,231	28,406	26,218	30,110	32,771	26,575	26,106	27,582	26,123	24,711	24,732	24,807	23,870	24,066
Korean.....	.....	.....	.....	.....	2,435	4,046	3,615	2,688	2,125	2,229	1,762	1,771	1,668	1,387	1,302	1,499	1,307	1,352
All other.....	885	144	418	1,078	58	48	19	75	140	10	816	279	1,268	1,209	310	1,265	1,200	300
Total.....	35,967	36,050	39,587	42,242	45,890	45,242	41,525	44,447	46,918	41,702	43,917	45,048	47,348	45,600	46,048	45,654	43,961	45,000
Asiatic.....	31,622	31,622	32,513	34,966	36,544	37,490	33,517	35,999	37,812	32,665	32,619	32,111	32,535	29,699	28,353	28,464	27,174	26,177
Non-Asiatic.....	4,344	4,428	7,074	7,276	7,316	7,752	8,008	8,451	9,106	9,037	11,298	12,937	14,810	16,904	17,695	17,190	16,787	18,823
Per cent non-Asiatic ³	12.12	12.30	17.96	17.22	16.96	17.13	19.28	19.00	19.40	21.67	25.72	28.71	31.26	37.16	36.43	37.66	37.50	37.39
Sugar crop (tons) ⁴	262,807	289,544	360,068	355,611	367,476	426,243	429,213	440,017	521,126	635,156	513,127	566,821	596,268	527,000	517,068	646,445	568,463	640,522

¹ The figures for 1903 are not available; those for 1904 are as of July 31; those for 1905-1911 as of June 30; those for 1912, 1913, and 1914 as of May 31; and those for 1915, 1916, and 1917 as of Apr. 30.

² In 1899 and 1902 Americans are included among "All other."

³ Non-Asiatics for 1917 are: Filipinos, 21 per cent; all others, 16.39 per cent.

⁴ Sugar crop is for year ending Sept. 30; for 1917 is estimated.

PUBLIC LANDS.

The following table shows the total area of Government lands and their estimated valuation as of June 30, 1917:

Public lands of the Territory of Hawaii as of June 30, 1917.

Classification.	Area.	Total area.	Valuation.	Total valuation.
	<i>Acres.</i>	<i>Acres.</i>		
Agricultural lands.....		52,110.80		\$3,974,253.35
Cane lands.....	31,659.19		\$3,387,515.25	
Other agricultural lands.....	18,793.38		419,444.00	
Rice and taro lands.....	1,299.39		163,860.00	
Fish ponds, etc.....	358.84		3,524.00	
Net homestead area.....		30,931.27		883,955.12
Homestead lots, amount unpaid.....	13,949.24		293,287.66	
Homesteads opened, untaken.....	12,344.79		280,463.55	
Homesteads, surveyed, not opened.....	4,637.24		\$10,203.91	
Homesteads, exchanges and reserves.....		1,788.08		105,375.00
Pastoral lands (not cultivable).....		486,107.07		1,361,303.63
Total saleable lands and valuation.....		570,937.22		6,324,987.00
Total forest lands.....		565,030.87		2,781,266.00
Forest lands.....	215,085.35			
Forest reserves.....	349,945.52			
Total area of lands of value.....		1,135,968.09		
Waste lands absolutely of no value.....	507,950.69	507,950.69		
Total public lands.....		1,643,918.78		9,076,253.69

HOMESTEADING.

There were taken up during the year 139 homesteads, covering an area of 4,957.835 acres, at valuations aggregating \$55,220.41, or \$11.13 per acre, on the average. The homesteads taken averaged 35.667 acres each. They were taken by different nationalities, as follows: Hawaiians, 89; Portuguese, 24; Americans, 8; and others, 18. To enable homesteaders to obtain homesteads of suitable size for their needs, they are given the option of taking one or two or, in some cases, three lots. There were taken under special homestead agreements 69, under certificates of occupation 9, under right-of-purchase leases 45, under cash freehold agreements 8, and as homestead leases 5, special sales agreements 3.

During the year 31 homesteads were surrendered or forfeited, covering an area of 736.926 acres. During the same period 60 transfers of homestead lots were made, having an area of 1,083.796 acres.

Homestead roads were constructed out of the entire proceeds of homestead sales, rentals under right-of-purchase leases, and interest on deferred payments. Homesteaders are given advice and assistance in various ways by the United States experiment stations, the territorial marketing division, the College of Hawaii, and the bureau of agriculture and forestry.

SALES FOR OTHER THAN HOMESTEAD PURPOSES.

Such sales may be made of lots not exceeding 3 acres for residence purposes and so much as may be actually necessary for railroad purposes, irrigation ditches, factories, mercantile establishments, hotels, churches, private schools, and a few other purposes. This provision should be broadened so as to include telephone lines, hospitals, etc. Except in the special cases referred to, sales for other than home-

stead purposes must be at public auction. They may be made either for cash or on time payments. Most are residence lots and on time payments.

During the year there were sold at auction for cash seven residence lots in Kapaa, Kauai, aggregating 2.65 acres, for \$3,455; one residence lot at Puhonua, Hilo, Hawaii, of 3 acres, for \$1,020; one Government remnant at Kula, Maui, of 2.50 acres for \$41; one church lot in Puukapu, South Kohala, Hawaii, of 0.542 acre, for \$35; two church lots in North Hilo, Hawaii, aggregating 4.36 acres, for \$506; one residence lot in Hilo, Hawaii, of 0.72 acre, for \$501; one pasture lot of 2 acres for \$165; three mercantile sites, aggregating 21.078 acres, for \$5,076; making a total sales at auction of 17 lots, aggregating 36.85 acres, for \$10,799.

LEASES AND LICENSES.

During the year 64 general leases were sold at public auction, aggregating 14,587.444 acres, at rentals aggregating \$10,492.70 yearly. Of these, 28 were tracts of pastoral land, aggregating 13,878.352 acres, at rentals aggregating \$3,180.50; 19 were tracts of agricultural land, aggregating 630.951 acres, at rentals aggregating \$3,150; 6 fishponds, aggregating 60.79 acres, at rentals aggregating \$1,627; 5 were mercantile sites, aggregating 4.449 acres, at rentals aggregating \$2,333; 3 were town lots, aggregating 6.872 acres, at rentals aggregating \$104.20; 2 were church sites, aggregating 3.03 acres, at rentals aggregating \$47; and 1 was a camp site of 3 acres, at a rental of \$51.

During the year six land and water licenses were issued, as follows: One plantation pipe line for camps at Honomu, Hilo, Hawaii; one plantation land for tank for storage of water, etc., at Kukaiau, Hawaii; one plantation rights of way for flumes, roadways, etc., at Hakalau, Hawaii; one plantation pipe-line and trestles for water and molasses at Aiea, Oahu; one engineering company to use materials from lands at Honokowai, Maui; and one to person to cut timber on land at Laupahoehoe, Hawaii.

TRANSFERS, EXCHANGES, AND PURCHASES FOR PUBLIC PURPOSES.

Public lands in the Territory may be transferred from the Territory for the uses and purposes of the United States by order of the President or the governor and restored to the Territory by order of the President.

The Territorial public lands are under the Territorial land department unless transferred by order of the governor for special public purposes. The following transfers were made during the year in the form of Executive orders:

For use of the National Guard of Hawaii as rifle range, 14.12 acres.

For use as a public park under the management and control of the board of supervisors of the county of Kauai, 7.19 acres.

For use of the board of agriculture and forestry as a fumigating house, lot 7,740.7 square feet.

For use as an addition to the Territorial prison site, 13.80 acres.

For use for park purposes under the management and control of the board of supervisors of the city and county of Honolulu, 14,254 square feet.

For use as a reservation for race-track and National Guard drill grounds under the management and control of the board of supervisors of the county of Hawaii, 55.36 acres.

For use as a dumping ground under the control of the board of supervisors of the county of Kauai, 16,770 square feet.

For use for school or other public purposes under the management and control of the board of supervisors of the county of Kauai, 6.32 acres.

Exchanges may be made of only small areas and values and only for public purposes. During the year 39 pieces, aggregating 196.311 acres, were exchanged for 39 pieces, aggregating 142.197 acres, of which 20 were for road purposes, 7 were for school purposes, and the other 12 were for reservoir, sanitarium, and other public purposes.

PATENTS AND COMMUTATIONS.

There were issued during the year 255 patents, covering an area of 3,790.714 acres, for considerations aggregating \$180,143.62, or at the rate of \$40.07 per acre. Of these, 47 were right-of-purchase leases, 23 land exchange, 122 time payments, 9 cash freehold agreements, 20 cash purchases, 28 preference rights, 5 compromises with abutting owners, 1 homestead under acts of 1892 and 1895.

There was also issued one patent based on land commission awards upon payment of commutation, the area being 0.567 acre and the commutation \$22.50.

REVENUES AND DISBURSEMENTS.

The total receipts of the land department were \$375,126.94, as compared with \$373,306.29 for the preceding year.

The expenditures of the land department for the year were \$34,348.29, of which \$15,203 was from appropriations made by the legislature and \$19,145.29 from the proceeds of public lands, which may be used for surveying and opening homesteads under the terms of the organic act.

Receipts of public lands department for the year ending June 30, 1917.

Rents:		
General leases.....	\$237,965.39	
Right of purchase leases.....	5,026.10	
Kaimu leases.....	5.00	
		\$242,996.49
Interest and fees:		
Special homestead agreements.....	6,884.12	
Special sale agreements.....	3,254.49	
Homestead agreements.....	1.96	
Cash freehold agreements.....	273.17	
Commutation.....	52.20	
Office fees.....	584.10	
		11,050.04
Land sales:		
Special homestead agreements.....	40,669.68	
Special sale agreements.....	31,715.15	
Right of purchase leases.....	12,258.64	
Cash freehold agreements.....	1,527.57	
Preference rights.....	2,877.30	
Cash sales.....	30,743.50	
Government commutations.....	142.50	
		119,934.84
Improvements on lands.....		340.00
Government realizations.....		806.07
Total.....		\$375,126.94

NATIONAL PARKS.

Through the setting aside by act of Congress, approved August 1, 1916, of certain lands embracing the celebrated volcanoes of Kilauea, Mauna Loa, and Haleakala, to be known as the Hawaii National Park, Hawaii is provided with permanent attractions for tourists and travelers unequaled anywhere in the world. The lands set aside are gradually being acquired by deeds and exchanges.

B. G. Rivenburgh, commissioner of public lands for the Territory, has been designated to act in behalf of the National Park Service. He is making the necessary arrangements that will bring to ultimate consummation the plans of the people for a national park in Hawaii. The strongest local support will be given the Federal Government in these projects.

SURVEY DEPARTMENT.

The work of this department for the year ending June 30 has not differed essentially from that of the preceding year, though more homestead subdivisions were made and a number of unoccupied lots in old homestead tracts were subdivided to accommodate new applicants, who are limited to areas of 80 acres or less under the present land laws.

Seven new homestead subdivisions were completed, and two tracts in the vicinity of Hilo City, Hawaii, were subdivided into house lots.

In accordance with the provisions in act 61, session laws of 1915, surveys and plans filed in the land court for registration of title are examined and checked on the ground by this department.

During the last period 22 petitions on the island of Oahu, 1 on Hawaii, and 2 on Maui were examined and checked, the expenses incurred in doing this field and office work, however, being considerably in excess of the legal fees derived therefrom.

Assistance has been given the several departments of the public service in all matters involving land titles or requiring surveys, plans, tracings, prints, and other data.

The expenditures under special account of "Expenses of surveying and opening homesteads" for the fiscal year ended June 30, 1917, amounted to \$12,068.21. This includes office as well as field work. Under the legislative appropriation for surveying government lands, furnishing data, making surveys for various Territorial departments, and general office work the expenditures totaled \$15,836.76.

Receipts from the sale of maps, tracings, blue prints, copies of surveys, rating of chronometers for navigators of merchant vessels calling at this port, and the checking of surveys and plans filed in the Land Court, amounted to \$969.20.

FIELD WORK.

ISLAND OF HAWAII.

Homesteads.—The greater portion of the Kaauhuhu tract in North Kohala, comprising 880.83 acres, was subdivided into 40 homestead lots, averaging 16.61 acres. In the homestead tract are 5.92 miles of road, area 24.34 acres; 5.18 acres of flume and railroad rights of way;

4.41 acres of small remnants; 9.80 acres in the National Guard reservation, and a number of small lots aggregating 14.73 acres. There is also a leased tract in the upper section with an area of 149.20 acres.

The Kalopa tract in Hamakua district containing 1,509.58 acres, most of which is excellent cane land, was subdivided into 76 homestead lots, averaging 17.70 acres, and totaling 1,347.48 acres. Ten miles of homestead and other roads were surveyed and located, the area being 36.93 acres. Railroad and ditch rights of way, Government reserves, camp site, and land commission awards in this tract, have an area of 125.71 acres.

Immediately after the completion of the above work, a title and boundary survey was made of the Government remainders of Manienie and Pohakuhaku-Kemau, situated in the same district.

The remaining portion of the Laupahoehoe-Weloka tract, North Hilo, sections of which have been opened for homesteads from time to time, has been subdivided into 77 homestead lots, averaging 15.05 acres, and aggregating 1,158.59 acres. Nine and a third miles of road were located, totaling 38.47 acres; reservations for camp site, ditches, and flumes aggregate 4.85 acres. Within this tract are 180.44 acres of gulch land unavailable for cultivation, the balance of the land being planted in cane.

Upon settlement of the boundaries of the Lepoloa-Kauniho tract, North Hilo, which consists of first-class cane land within the bounds of the Hakalau plantation, it was subdivided into 17 homestead lots averaging 15.86 acres and aggregating 269.61 acres. Two and fourteen one-hundredths miles of road were run; area, 8.59 acres, and rights of way for ditches, flumes, and railroad having a total area of 3.85 acres were located.

A portion of the ili of Waiau in Piihonua, South Hilo, the lease of which had just expired, was subdivided into 91 residence lots, averaging 1.06 acres. Situated as they are, on the high lands of Hilo City, these lots make ideal residence sites. These Waiau house lots are located at the junction of two deep gulches, there being a waste area of 62.37 acres of gulch and pali land.

There were 3.4 miles of road in the street system laid out in this tract, area 17.96 acres. Later a location and profile survey was made of a road connecting this tract with the extension of the main road from Hilo City.

An additional area of the section of land in Waiakea reserved for the Waiakea house lots, near Hilo City, was subdivided into lots of about 100 feet by 200 feet in size. These lots are being opened up primarily for the workingmen who live and work in the vicinity. The necessary roads were laid out and partly constructed, the area subdivided totaling 130 acres.

There being an increased demand by the laboratories on the mainland for the root of the awa plant, which has certain medicinal properties, and its price having increased considerably, many of the abandoned homesteads in Puna district have been reoccupied by homesteaders with the intention of cultivating this plant.

In this connection 14 lots in the Kaohe homestead tract were re-surveyed and re-marked, the total area being 742 acres; 7 lots in the Kaimu-Makena section, 186.40 acres; 9 lots in the upper Kaimu section, 518 acres; and 6 lots in the Kikala-Keokea section, 391.93 acres, make the total area surveyed in this district 1,838.33 acres.

Five home sites in the Kaimu-Makena section were resurveyed and marked, the area being 37.33 acres.

An area of 277.10 acres in the Keauohana section of Puna district, containing some particularly fine specimens of native forests and ferns, was surveyed and marked out. This selected land is to be fenced in and set aside as a forest reserve. It was necessary to cut a line through a dense forest of ohia, ieie, and uluhi for a distance of $1\frac{1}{2}$ miles.

At the same time a traverse was run of the Kalapana Road, recently reconstructed, it being a part of the scenic circuit drive in this district.

A number of miscellaneous minor surveys on this island were also made.

ISLAND OF KAUAI.

Homesteads.—A portion of the land of Kapaa in Kawaihau district, containing 1,222.82 acres, was subdivided into 74 lots, averaging 16.52 acres. There are 11.7 miles of road, aggregating 50.68 acres, and 20.20 acres in the ditch, railroad, pipe-line rights of way, and other reservations, making the area surveyed in this tract 1,293.70 acres.

This subdivision is known as Kapaa homesteads, fourth series, and comprises the balance of the Territory's holdings suitable for the cultivation of sugar cane or pineapples, with the exception of a tract of 363 acres leased to a pineapple company, 76 acres of which were surveyed for the purpose of an exchange.

In addition to the homestead survey, Kapaa Rice and Kula lot 2 was subdivided into three lots with areas of 39.63, 57.31, and 67.61 acres, respectively; the Kapaa camp and stable lot, area 39.53 acres, and the playground opposite the Kapaa school lot, area 7.19 acres, were also surveyed and marked out.

A survey was made of the proposed Nonou Forest Reserve, area 81.8 acres, which is a section of waste ridge land about 2 miles from the seashore, extending from the Wailua River on the south to the Kapaa homesteads, second series, on the north.

ISLAND OF MAUI.

Some surveying was done in the Kuiaha-Pauwela and Kuiaha-Kaupakulua homesteads, Hamakualoa district, to recover a number of lot corners for the purpose of aiding homesteaders in identifying their boundaries.

A title study and boundary survey of grants in Kukuiaeo, Makawao district, made for the purpose of ascertaining what Government remnants, if any, existed there, resulted in determining the fact that no Government land remained in that region.

A survey was made of a number of parcels of land in the Waiohuli-Keokea section, Kula district, for exchanges for roads and other public purposes.

Five Government beach lots in Lahaina were surveyed and marked out, two of which have been taken up under the preference right to purchase.

The subdivisions of the Pa Pelekane lot at Lahaina Landing were staked out in accordance with agreements between the Territory and other parties interested.

ISLAND OF OAHU.

No homesteads were subdivided on this island during the past year. Many miscellaneous surveys were made, however, including the following:

The proposed Hauula Forest Reserve in Koolauloa district, to include the Government forest and valley land in Hauula and upper forest lands of Punaluu and Kaluanui, where the famous Kaliuwaa Falls are situated.

The proposed Waiahole Forest Reserve in the land of that name, Koolaupoko district, including the Government ilis of Makawai, Waianu I, and Kapikokau, and the ili of Hanakea, aggregating 1,168.55 acres.

The watershed of Nuuanu Valley at the Pali to determine the boundary of the Luakaha drainage reservation at that point.

The lower line of the forest reserve in Manoa Valley was surveyed and marked for the superintendent of forestry preparatory to fencing.

Government parcels on Round Top, Tantalus Heights, and Nuuanu Valley, within the forest reserve, for road purposes and for leasing.

Location survey of the Kailua-Kawailoa Road and branch road thereto from the Government land of Kawailoa, Koolaupoko district.

Two parcels of land, one in Aiea, Ewa district, and one in Makua, Waianea district, for applications under preference right to purchase.

Survey and map of the north end of Honolulu Harbor for board of harbor commissioners.

Six parcels of land in the Kamoiliili section for exchange with the estate of B. P. Bishop for additions to the girls' industrial school.

OFFICE WORK.

The observations for standard time and the time signal service, also the direction of the tide gauge in Honolulu Harbor, have been kept up as heretofore.

Several statistical reports were made for the legislature; descriptions of surveys for 16 exchanges between the Territory and various parties were examined; descriptions of surveys and sketch plans of 127 homestead lots, besides 107 of a miscellaneous nature, were furnished the land department. One hundred and nine were examined, checked, and reported on; 300 were furnished miscellaneous parties and other departments. Of the foregoing 70 were of Government remnants and of land involved in street widenings, parks, and various military reservations. Reports on land-court petitions and titles totaled 57. Twenty-two file plans were checked and 48 reports written on descriptions of surveys of lots involved in preference rights to purchase and of various exchanges. Three new maps, as well as maps of all the homesteads surveyed, were made. There were 73 tracings, 23 reductions, and 4,191 blue and black line prints. A number of boundary and title studies were also made.

The necessary routine of the office work, which is supplementary to that done in the field, has been greatly augmented by many calling to consult the maps and records on file and for information regarding various land sections; this, no doubt, being due to the general activity expressed in real estate as well as other lines of business.

BUREAU OF AGRICULTURE AND FORESTRY.

Changes in the organization of this board, which looks out for the auxiliary interests of pure agriculture in the Territory, made effective by the 1917 session of the legislature, resulted in the transfer on March 28, 1917, of the division of hydrography to the commissioner of public lands, to whose work hydrographic activities are more closely related, and provided for the taking over by this board of the Territorial marketing division on July 1, 1917, and on the same date for the separation, in the interests of efficiency, of the old division of entomology into a division of plant inspection to care for plant quarantine and inspection to prevent injurious insects from entering the Territory and a division of entomology to care for the work of beneficial insect introduction, propagation, and distribution, suppressing injurious insects already here, and other general entomological work. The board, as reorganized, now consists of five divisions—forestry, plant inspection, entomology, animal industry, and marketing—all of which are supported by specific appropriation out of the general revenues.

FORESTRY.

The increasing value of water in these islands, not only for the irrigation of agricultural fields but also to meet the domestic needs of a growing population, has already justified the activities of the division of forestry during the past 14 years in the effort to conserve and increase the sources of water supply by forest protection and extension. The division has, therefore, had this same object in view during the past year and in seeking to accomplish it has emphasized the work of fence building to keep stock from the native forests, the expansion of the field protective organization, the inclusion of additional forest areas in the reserve system, and the extension of the forests by actual tree planting.

During the fiscal year just ended 11.43 miles of new fences were constructed on forest reserve boundaries in Lualualei, Palolo, Makiki, and Manoa Valleys on Oahu, and at the Olaa Forest Park and Upper Olaa Reserves and at Kawaihae on Hawaii. Stretches of fences in Nuuanu, Oahu, and at Piha, Hawaii, amounting to 2.12 miles, were also repaired, making a total of more than 13½ miles of boundary effectively guarded against damaging stock.

One new forest ranger was appointed during the year and was assigned to Maui. The present force of six rangers on the four main islands is sufficient to handle the routine work of forest protection combined with tree-planting work. They operate under rule 11 of this division which was passed in April, 1916, and which satisfactorily provides for the efficient preservation and administration of the forest reserves.

The only forest fire which occurred during the year was on the military reservation at Waianaeuka, on the Koolau Range, where on June 25, 1917, about 50 acres of grass land with some patches of forest were burned over. This fire was promptly extinguished the same day by two troops of cavalry and 90 prisoners of war.

Two new forest reserves were set apart by official proclamation during the year, the Round Top Reserve consisting of 115 acres of government land back of Honolulu, Oahu, adjacent to the existing Honolulu Watershed Forest Reserve, and the Panaewa Forest Reserve consisting of 1,750 acres of government land in Waiakea, Hawaii, 4 miles out of Hilo and along the road leading to the volcano of Kilauea. This brings the total number of forest reserves in the Territory up to 40, with a total area of 800,094 acres.

The planting of trees in the Territory has continued on an increased scale. During the past calendar year 660,079 trees were raised and distributed from the government nurseries for general planting throughout the islands, and during this same period 925,400 trees were planted by both the government and private parties. Of this number 43 per cent was planted for water conservation, 35 per cent for fuel, 16 per cent for windbreak, and 6 per cent for timber and ornament. The tree-planting activity of this division has been centered on water-producing areas back of Honolulu on Oahu and on two similar areas on Kauai. Considerable progress has also been made in the introduction and establishment of trees from other tropical countries, such as Australia and India, which will be suitable for the purposes of watershed cover and for timber production. An intensive experiment to determine the growing qualities and value of many introduced species has been started at the Manoa ranger station, where 50 different kinds of trees have been planted in varying amounts. On Arbor Day 20,979 trees were distributed for general planting throughout the Territory.

ENTOMOLOGY.

The work performed by the chief plant inspector and his assistants during the fiscal year ended June 30, 1917, consisted of the inspection of all fruits, vegetables, and plants coming into the Territory from foreign countries and the mainland of the United States to prevent the introduction of pests and plant diseases liable of becoming injurious to the various agricultural industries of these islands, and the inspection of all fruits, vegetables, and plants going from the port of Honolulu to the ports of all the other islands for the purpose of preventing the spread of any pest now existing on Oahu, as well as any future introduction of pests or fungi from Honolulu, the only port of entry for plants and plant products from foreign countries.

During this period there arrived at the ports of Honolulu, Hilo, and Kahului, the only ports in the Territory where shipments of fruits and vegetables can enter directly, and at which places local inspectors are stationed, 714 vessels. Of these, 331 carried vegetable matter consisting of 316,052 packages of fruits and vegetables and 8,233 packages of plants and seeds. Of this amount 6,917 packages had to be fumigated on account of infestations of various kinds, 811

packages were destroyed by burning on account of either serious infestations or of being contraband, and 107 packages were returned to the original shipper as contraband and unmailable.

Many vessels also came to Honolulu for coal and other supplies on their way to the Orient, passing from the Atlantic to the Pacific through the Panama Canal. All these vessels were boarded and inspected for vegetable matter, so that no infested material on board should escape and be the cause of new pest introduction while the vessels were in port. Notices pertaining to fruit and plant shipments are served to the proper officers, who are then prepared on their future visits to comply with the rules and regulations of the Territorial as well as the Federal plant inspection.

The local consumption of fruits and vegetables imported from the Pacific coast is increasing with our growing population, and of late years, owing to the thorough system of county inspection, all fruits and vegetables are of better quality. The following were some of the larger staples imported:

Oranges -----boxes--	23, 528	Celery -----crates--	2, 262
Lemons -----do-----	5, 523	Onions -----bags--	22, 798
Cabbage -----crates--	1, 113	Potatoes -----do----	85, 586

During the past year large quantities of onions and potatoes have been produced on these islands, both of excellent quality.

The inspection of horticultural produce leaving Honolulu for ports on the other islands has been continued on similar lines as last year. During the fiscal period 754 steamers were attended to and 10,967 packages of plants, fruit, and vegetables were inspected. Of this number 187 packages were seized and refused shipment on account of infestation or of having undesirable soil attached to the roots of plants which was liable to carry pests or diseases.

The new quarters which will soon be completed for the division of plant inspection near the water front in Honolulu will greatly facilitate and increase the efficiency of plant quarantine and inspection.

The remainder of entomological work carried on during the past fiscal year by a staff composed of one entomologist and two laboratory assistants, has consisted of introducing and propagating beneficial insects, advising in regard to agricultural and stock pests, and the care and upkeep of the insect collections.

During the year two important parasitic insects have been introduced and established, one a small wasplike insect living at the expense of the melon fly, a serious pest of fruit and vegetable gardens, the other a minute hymenopterous insect developing in and destroying the egg of the corn-leaf hopper, the worst pest of Indian corn in the islands. These two insects have been propagated in large numbers and distributed throughout the islands, and it is believed that great benefit has been derived from them. The corn crop, which is of such importance at the present time, has been much better this year than in any previous year. Meanwhile the propagating of the parasitic insects introduced to control the ravages of the fruit fly and to keep down the number of dung flies has been continued, and it is believed in some measure these destructive and annoying pests are controlled.

ANIMAL INDUSTRY.

During the year there has been a steady progress in the development of practically every class of domestic animal without the interruption or setback of drought or, with one exception, of disease. The rigid inspection made by this division of all imported animals has been successful in keeping out of the Territory such diseases as rabies, foot-and-mouth disease, and Texas fever. The imports of beef and dairy cattle have been represented by individuals of superior merit, and the beneficial effect of pure-bred bulls on the beef production is now an established fact with the result that the Territory is self-supporting so far as beef is concerned. The same may be said of hog meat, for the importation of swine was confined to pure-bred stock for breeding purposes and no hog cholera occurred during the year in island piggeries. Although the importation of mules for plantation use has continued at about the same rate, the number of horses imported has been less, due to the fact that the Army is buying island-bred horses in increasing numbers for Cavalry remounts. Merino rams from New Zealand and America have been imported to improve the breeds on various ranches where sheep raising is profitable. Poultry and dairy products are still imported in increasing amounts to supply market demands. The improvement of all classes of live stock in the Territory has been accelerated by the opportunity of friendly competition offered by the county fairs held during the year on Hawaii and Maui.

The division has successfully introduced and put to effective use a cure for sorehead in poultry, which has been the means of saving many flocks from extermination.

The campaign for the eradication of bovine tuberculosis in the Territory has progressed with satisfactory results, and the number of animals reacting to the test has been reduced to 2.87 per cent. In the 18 new dairies started during the calendar year 1916 all the animals were found to be free from tuberculosis. The passage of an act by the last legislature whereby \$20,000 was made available for the indemnification of owners of cattle destroyed on account of tuberculosis will doubtless greatly aid the division in the complete eradication of this disease.

The only serious outbreak of an animal disease during the year was the sudden appearance of anthrax in April on a large ranch on the windward side of Kauai. This was followed late in May by an outbreak of the same disease in a dairy herd on the outskirts of Honolulu on Oahu and early in June by outbreaks in several different pastures on the island of Maui. As soon as the outbreak occurred quarantines were placed on each island and the infected districts were closely guarded to prevent the spread of the disease. Carcasses of animals dying of the disease were located as speedily as possible and cremated at once. Supplies of serum vaccine were cabled for, and by its use the spread of the disease was greatly checked. Fortunately it was possible to secure from the legislature, still in session when the first outbreak occurred, a special appropriation of \$25,000 to combat this disease. The question of how anthrax reached the Territory, where it has never occurred before, remains an unsolved puzzle, since it would be next to impossible for the disease to reach

these shores by means of live animals, because when the infection once gains an entrance into the blood the victim dies in the course of a few hours to two or three days. The theory that it was brought in with imported grass seed is refuted by the appearance of the disease in pastures where no imported seed was ever planted. Another theory, that it may have been introduced with imported bone meal, has also failed of proof after exhaustive bacteriological experiments. In the meantime everything is being done to control the disease in infected districts and to prevent its spread to the island of Hawaii.

DIVISION OF HYDROGRAPHY.

The scope of work done by this division during the past year has broadened considerably, and in addition to the general investigation of rainfall and the surface water resources of the Territory, carried on in cooperation with the United States Geological Survey, as in the past, a greater proportion of the time and funds of the organization was given to underground waters, water utilization, and water valuation work than ever before.

The past year has been an exceptionally favorable one from the water users' and stock raisers' viewpoint. Except during the month of December, 1916, when storms caused heavy floods, which resulted in much damage being done to small structures, roads, etc., the rainfall was generally not only abundant but well distributed, resulting in excellent agricultural and grazing conditions. Authentic records were obtained, showing probably the most remarkable range of rainfall within short distances that has ever been recorded. The rain gauge on Mount Waialeale, Kauai, elevation 5,060 feet, recorded during the year 561 inches of rainfall, while at Kekaha, elevation 500 feet, less than 15 miles southwest, the precipitation was only 18 inches. At Kokee, elevation 3,500 feet, 10 miles northwest of Mount Waialeale, the rainfall was 77 inches. The maximum daily rainfall recorded was 25.5 inches in the Wainiha Valley, Kauai.

The Territorial Water Commission, of which the superintendent of hydrography was chairman, completed its work and submitted its report with recommendations to the Governor of Hawaii. All field and office work incident to this report was performed by employees of this division. The services of Mr. A. E. Chandler, State water commissioner of California, were secured to assist the commission, and the 1917 Territorial legislature enacted the "Artesian water law," in slightly modified form, suggested by him and recommended by the commission. The work of this commission has resulted in a law which should prevent a large part of the waste of artesian water, which has occurred in the past, and also in the collection, in one volume, of practically all available data relative to artesian waters on the Island of Oahu.

The work of the division has been of much value in connection with the problem of Honolulu's future water supply. The report of the Territorial Water Commission brought to light the necessity of not only conserving the artesian water resources, but of acquiring additional surface waters to augment the artesian supply. Stream measurement stations were maintained on all important perennial streams which might be utilized in the future to augment the city's

supply. An investigation was made in Hillebrand Glen to determine the relation between rainfall and run-off in order that reliable data relative to surface-water storage might be available. The data obtained showed that previous estimates along these lines were very much in error. Rainfall gauging stations were maintained in areas not covered by the United States Weather Bureau.

The work of obtaining reliable data in connection with the quantities of water furnished under the various water licenses were continued. Under these water licenses various corporations have the right to divert from Territorial lands (unsuited for agricultural purposes) the surface waters, which would otherwise be largely wasted, for the irrigation of privately owned lands. The customary method of determining compensation employed in the past was to "get together" and determine a flat rate to be paid annually by the licensee. In so far as the Territory was concerned, this rate was usually not based on a definite knowledge of the quantities of water delivered or as to what proportion of the costs of and profits derived from the crops irrigated therewith were due to the waters delivered.

It has been suggested by this division that in renewing these licenses (a large number of which are terminating in the near future) the compensation should be based on the actual quantities of water delivered, and also be subject to a sliding scale, based on the mean annual price of sugar, as it is estimated that at least 95 per cent of the water diverted under these licenses is used in connection with sugar production.

Among the other activities of the division were included: A considerable amount of work in connection with the legal department of the Territory; an investigation of the water resources of the island of Oahu from a military viewpoint; an investigation of the feasibility of establishing tide gates in connection with a drainage project at Fort Kamehameha, Oahu; and an investigation of climatic and living conditions at Kokee, Kauai, a proposed camping and recreation place located at an elevation of 3,500 feet, at the head of the beautiful Waimea Canyon. Records obtained thus far show a maximum temperature of 74°, a minimum temperature of 30°, and a mean temperature of 43° F.

On June 30, 1917, there were being operated by this division 92 stream and ditch measurement stations and 36 rainfall measurement stations. In addition to these cooperative records from 8 stream and ditch measurement stations and 66 rainfall measurement stations are collected, computed, and published annually.

HAWAII AGRICULTURAL EXPERIMENT STATION.

The isolated position of the Hawaiian Islands, combined with the world food shortage, has revealed more clearly than ever the dependence of the islands on distant sections for its food supply. The focusing of attention on the vital necessity of the local production and utilization of a much greater proportion of the locally-raised food products has led to a gratifying response on the part of numerous local organizations and individuals. It has been fully realized that in making serious efforts to feed herself, Hawaii is doing a real service both to herself and to the country at large, and that every

pound of food produced here releases just that much for use elsewhere, as well as providing the best form of insurance against the possible consequence of complete isolation from the mainland.

As far as practicable the resources and activities of the station have been directed along the lines having a direct bearing on the production of locally-grown food and forage crops. In all this work, which has been cooperative in many of its phases, there has been the most cordial cooperation on the part of the various individuals, organizations, and institutions concerned. The difficulties met in competing with the agricultural districts of the mainland along food-crop production lines are thought to be vital and some practicable remedial measures are being sought. The land available for the production of food crops other than sugar is usually of such a nature as to slope and presence of lava rocks as to make hand labor essential to crop cultivation. Added to this the isolated nature of most of the agricultural districts, the difficulties of shipment to market—some sections having only a monthly boat upon which shipments can be made—all combine to render the cost of production greatly in excess of that of mainland sections. Not the least of the drawbacks is the multitude of insect enemies and plant diseases which are not held in check by the annual winter season as is the case elsewhere. This necessitates continual vigilance on the part of would-be producers who often fail to understand the necessity of such precautionary or remedial measures as spraying. The building up of a strong local demand for locally-grown products would do much to overcome the customary situation, but a definite subsidy of some nature of sufficient size to make economically possible the production of at least sufficient food stocks to enable the islands to exist even though cut off suddenly from the mainland would appear to be necessary.

Buildings and grounds.—During the year a set of farm buildings, including a combination stable and barn and a four-room residence for the substation foreman, was erected at the Castner substation. The type of construction is such that the attic is available for curing forage-crop samples and the space beneath the first floor is utilized for the storage of implements. Inasmuch as there exists no convenient supply of household water, redwood tanks have been installed to catch the rainwater from the buildings.

Changes in staff.—Mr. Valentine S. Holt, assistant horticulturist, resigned August 31, 1916, to take up private work. Miss Alice R. Thompson, assistant chemist, who has been temporarily transferred to the Bureau of Chemistry for a year's special work on fruits and fruit wastes, was given a permanent transfer. Mr. A. T. Longley, who had been furloughed commencing July 1, 1916, to the Territory of Hawaii, was restored to the salary rolls February 1, 1917. He resigned June 30, 1917, to become superintendent of the Territorial marketing division, under the auspices of the Territory of Hawaii.

Cooperation with military posts.—The national food-emergency situation has led to the establishment of vegetable-growing tracts on the lands of a number of military reservations on the island of Oahu. In this connection the experiment station has been able to render material assistance to the selection of suitable soils, recommendations regarding crops to be grown, and in some instances has been able

to supply plants and seed produced on the station grounds. On the Schofield Barracks Reservation over 100 acres of sod and guava land has been cleared and broken up, and the larger part is already planted to cassava and sweet potatoes.

The forage-crop work on Schofield Barracks Reservation, at Castner, was definitely inaugurated July, 1916, and during the year a considerable number of forage and food crop production experiments have been started. The handicaps of the situation are a lack of sufficient rainfall for the production of many of the crops which might otherwise be available, the presence of strong winds, and the high manganese content of the soil. About 50 varieties of grasses, forage crops, and food crops are under test.

Horticultural investigations.—The growth and development of seedling pineapples has constituted an important line of work during the past year. Several thousand seedlings have been potted out in individual pots, and as fast as they attain sufficient size are transferred to the cooperating plantations, where they will be brought to fruit under regular field conditions. Two varieties new to the islands have been introduced through the cooperation of the section of foreign seed and plant introduction. One of these is the MacGregor, from Queensland, Australia, where it was developed from a seedling.

The potential value of small home vineyards led to the establishment of a cooperative vineyard of about an acre in extent, where various fertilizer, variety, and cultural experiments are in progress. The principal work with avocados has been in connection with the development of a winter-ripening type, with the rind sufficiently hard and tough to furnish protection from the fruit fly as well as to add to its shipping qualities. Seven different varieties of avocado have been introduced from California. A number of mango hybrids have been made in an attempt to combine the various good qualities of the different varieties in a single hybrid. One of the handicaps under which tomato growing is carried on in the islands is the attack by the melon fly. The small native tomato is immune to these attacks, and hybrids relatively immune have been developed by crossing with the Earliana variety of tomato. Several thousand seedlings from these hybrid plants are being grown and watched by several hundred cooperating individuals in connection with their plantings in home gardens throughout the islands. The most desirable individual plants will be used further in the development of a relatively immune standard size tomato.

Chemical investigations.—The most important line of work conducted by the chemical division has been the following up of the preliminary results obtained from spraying pineapple plants growing on manganese soil with iron sulphate. The iron sulphate has been ordered in carload lots by a number of the local pineapple companies, the practice of spraying having been universally adopted wherever there are manganese soils present in the pineapple plantings. A large acreage of otherwise good pineapple land has been allowed to stand idle in the past owing to the presence of the large quantities of manganese in the soil. With this problem solved, these areas are now being broken up and planted to pineapples. Over 5,000 acres of manganese affected land was successfully treated with the iron sulphate spray during the past year. The pineapple

wilt is giving considerable concern to local growers and a number of experiments are under way, the object of which is the development of a successful means of overcoming this trouble. The application of suitable quantities of lime appears to be the most promising method of procedure on the wilt-affected soils.

Fertilizer experiments with rice, banana, and pineapple have been inaugurated in cooperation with various growers throughout the islands. The present food shortage has made especially important the drying of such food products as would otherwise be lost from decay in case they can not be used with reasonable promptness. Preliminary experiments have shown that local grown cassava, sweet potato, Irish potato, etc., can be readily dried by exposure to the sun and wind on suitably constructed driers, and that the resulting dried product can be stored without apparent deterioration.

Extension work.—The work of the extension division has been prosecuted along a number of different lines and several methods of approach have been utilized. Timely articles in local newspapers have brought home the more vital messages to the reading public. The establishment of a series of extension bulletins was an important innovation in that it provides a channel through which miscellaneous items of a general agricultural nature can be brought to the attention of those interested. The nature of the regular station bulletins and press bulletins is not such as to lend themselves readily to the promulgation of miscellaneous short agricultural articles. The welcome reception given these extension bulletins has furnished evidence of their usefulness. In addition to the above, numerous field trips have been taken by various members of the staff for the purpose of explaining and demonstrating improved agricultural operations such as spraying, budding, grafting, pruning, and garden management. Five demonstration farms have been maintained cooperatively with the owners of the farms. These have furnished numerous object lessons that appeal alike to the members of all races irrespective of color or language. The food crop production campaign has called for a great deal of extra work on the part of those directly interested in the extension phases of the activities of the station. The manifest appreciation of this work has been gratifying. A decided stimulus to numerous lines of agricultural endeavor was given by the two agricultural county fairs in which the extension division was an important factor contributing to the success of these enterprises.

Plant-disease investigations.—The division of plant pathology was installed at the station June 1, 1916, but most of the development of the pathological division has been accomplished during the past fiscal year. The division now occupies three rooms, namely, a combined office and library, a laboratory for microscopical and general work, and a separate gas-equipped laboratory room where culture media are prepared. The diseases of the potato, banana, and celery have received the greatest amount of attention during the season. The potential importance of the Irish potato crop combined with the presence of several serious diseases has made the potato-disease project the most important line of work of the division. The emergency food production campaign has led to repeated calls on the station pathologist for advice and assistance regarding the best

means of overcoming the various plant diseases and insect pests of the garden. To supply this information, seven different multi-graphed sheets have been prepared, giving directions for overcoming these pests.

Glenwood substation.—The work of the Glenwood substation has been along poultry, dairy, and food and forage production lines. Attention has been focussed on the poultry work as it has proved the most profitable of any line of work so far inaugurated at the substation. Trap nest and egg weight records have been maintained for the flock throughout the year. This has afforded the best possible basis for the selection of eggs for distribution for hatching purposes. The work with the edible canna has been continued and tubers from the original planting have been distributed throughout the islands in connection with the emergency food crop production work. A number of different plantings of celery have indicated that with careful attention to spraying at the proper time the crop is reasonably certain both under cloth and when grown in the open.

Among the forage grasses the common bamboo grass has made a creditable showing under the adverse climatic conditions present throughout most of the year. The ravages of cutworms make it difficult to establish a stand of alfalfa. This difficulty was overcome by transplanting tomato plants. Vigorous, isolated plants of alfalfa several years of age attest the possibilities of this crop when once established. A number of varieties of bur clover were tried with fair success. The bur clovers are not sufficiently erect in their habit of growth to permit of their being easily cut for green forage. They are of more promise for use in pastures. During the autumn of 1916 the substation maintained an active interest in the local county fair. This fair brought to light a very promising relatively blight-resistant potato which is apparently a hybrid between a local Portuguese red potato and some mainland variety, several of which were being associated with the Portuguese red at the time. Comparative tests for disease resistance were at once started at the substation and the showing made by the new variety as compared with the mainland varieties was remarkable, the blight completely destroying the vines of the ordinary varieties a considerable time before the crop had fully matured while the resistant variety was attacked only at a considerably later date and then not seriously. Comparative tests on the other islands have not shown such striking results, so that for the time being most of the extension work with this new variety will be carried out on the Island of Hawaii, where it appears to be of the most promise.

Agronomic investigations.—The work of the agronomy division has been devoted to a continuation of the experiments in rice, taro, potatoes, and various legume crops and forage grasses.

One of the most important lines of work conducted by the agronomy division had been the establishment of the substation at Castner, Oahu, on the Schofield Barracks Reservation in cooperation with the military authorities. The plots have been laid out, and various tests of varieties, methods, kinds, and amount of fertilizers and cultural methods have been inaugurated. These experiments were sufficiently under way to furnish much valuable information for use in connection with the emergency food and forage production work inaugurated in the spring of 1917.

Publications.—The following publications have been issued during the year:

Annual Report for 1916.

Bulletin 41, Phosphate Fertilizers for Hawaiian Soils and Their Availability.

Bulletin 42, Composition of Hawaiian Soil Particles.

Bulletin 43, Chemical Studies of the Efficiency of Legumes as Green Manures in Hawaii.

Press Bulletin 51, The Spraying of Yellow Pineapple Plants on Manganese Soils with Iron Sulphate Solutions.

Press Bulletin 52, Comparative Value of Legumes as Green Manures.

Extension Bulletin 1, Extension Notes I.

Extension Bulletin 2, Extension Notes II.

TERRITORIAL MARKETING DIVISION.

The volume of business transacted by the division during the year was greater than for any previous year in its history. Sixty different kinds of island products were marketed for 474 different consignors. The individual consignments numbered 2,538 and were sold for a total of \$121,512.90. In addition to the consignment sales, seeds, crates, and merchandise to the amount of \$18,006.15 were sold to producers and others. The consignments handled by the division have included nearly every island agricultural product from green vegetables and preserved fruit products to dressed meat and live stock. The individual consignments have ranged in value from a few cents to more than \$1,000 each. The numbers of individual consignors from the different islands are as follows: Oahu, 321; Hawaii, 73; Maui, 45; Molokai, 24; Kauai, 11. While Oahu led in the number of consignors, Maui's shipments, which were made up largely of beef, hogs, corn, beans, and potatoes, were of much greater value.

The retail meat and vegetable branches were established to furnish an outlet for the consigned produce which could not be sold to advantage to the local retail stores. It was the intention to run these on a basis which would be just self-supporting, and although they did not quite pay for their costs of operation, they served a most useful purpose in that they greatly increased the returns of the consignment branch. Until these retail departments were established the division experienced great difficulty at times in disposing of consigned produce to local dealers, and often large quantities of perishable fruits and vegetables were lost. With the establishment of the retail branches it became possible to dispose of all such produce directly to the consumer in case the local stores were not in the market at the time. One reason for the difficulty experienced in selling locally grown consignments of vegetables to the retail stores is that most of them have regular standing orders for such produce to be shipped each week from the coast, the customary island-grown supply having been irregular in coming into the market and frequently not put up in the packages desired by the trade.

The recent session of the legislature increased the appropriation for operating expenses for the ensuing biennium from \$24,000 to \$30,000. In addition to this, the sum of \$5,000 was appropriated for extension work among the producers, advising them as to what and when to plant and how best to prepare and grade for shipment to market. The producer often does not understand what the consumer demands, and without definite instruction along these lines he

is not in a position to compete with the mainland concerns which have long since realized the economic necessity of standardizing their products. A special revolving fund of \$2,500 was provided to permit the purchase of vegetable and other food-crop seed for sale at cost plus actual selling expenses. The revolving fund of \$7,500 provided by the legislature in 1915 was increased to \$15,000 and made more readily available for paying consignors.

An organization act was passed at the last session of the legislature defining the powers and duties of the division and placing it under the supervision of the board of commissioners of agriculture and forestry of the Territory, beginning July 1, 1917.

PUBLIC WORKS.

OAHU.

Improvements to the Oahu Insane Asylum.—During the year the board of health turned over to this department the designing and building of three additional cottages, a hydro-electro-therapeutic building and a dining room for this institution. At this date these buildings are practically complete and ready for occupancy.

By far the most important, in the scope and character of the treatment it makes possible, is the hydro-electro-therapeutic building, equipment for which was selected by Dr. J. S. B. Pratt, president of the board of health, on a recent visit to New York. The structure housing these fixtures is approximately 40 feet square, divided into four rooms and an office. The treatment room, wherein the hydriatic control table and the needle shower are placed; the bathroom, containing four large bathtubs; the electrical room, containing other apparatus; and the rest room comprise the general layout. An office is provided for the physician in charge and his assistants.

The cottages are built of stucco and frame, an economical and fire-proof construction. The architecture is of the rambling bungalow type, suitable for the climate and location. Each cottage contains 12 well-ventilated rooms, about 12 feet square, a wide lanai, well-lighted corridors, and a bath. In close proximity to the cottages stands the refectory or dining-room building, designed to accommodate 50 persons at a sitting. It is as open as the climatic conditions will permit and is fully screened.

Moving the Davies warehouse.—In order that Bishop Street might be extended to the water front, the legislature of 1917 appropriated \$20,000 for the removal of the Davies warehouse from lot 44, esplanade lots, to the adjacent lot, No. 31, a distance of 100 feet.

A contract is now in force for the removal and resetting of the building. The Territory will place the new foundations, lay the ground floor of concrete, and the lower courses of brickwork, and reconnect the plumbing fixtures.

The warehouse is of typical mill construction, 100 feet long, 50 feet wide, and about 34 feet high, with brick walls and wooden roof and floors. The original structure was three stories in height, but three intermediate floors since have been added. The total weight of the building alone is approximately 1,400 tons.

New building for board of agriculture.—By an executive order signed by the governor last February, the board of commissioners of

agriculture and forestry was assigned to new quarters on lot No. 44, esplanade lots, adjoining the new site of the Davies warehouse. Plans for two new buildings have been prepared by this department. In design they will harmonize with the lines of the proposed superstructure for Piers 8, 9, and 10, the idea being to establish a uniform type of water front architecture. The front building contains the laboratories and offices. The rear building is divided into fumigating vaults and a garage, with a modern incinerator adjoining. Construction has been deferred until the Davies warehouse shall have been moved.

New Territorial penitentiary.—Except for the administration building, now nearing completion, construction in general of the new Territorial penitentiary was discussed quite fully in the last annual report. Like the rest of the prison, the administration building is a reinforced concrete structure, 170 feet long, 45 feet wide, and three stories high. It contains the offices of the prison officials, dormitories for the guards, dormitories for female prisoners, hospital wards for both sexes, storerooms, emergency cells, and living quarters for the warden and deputy warden.

Quarters for the warden and deputy warden, consisting of two attractive cottages of the bungalow type, situated on the roof of the building proper, are now in process of construction. Plans for a laundry and shop building are now being prepared in this department, and it is intended to begin construction in the near future. This building also will be of reinforced concrete throughout and will house a laundry, tailor shop, shoemakers' shop, sailmakers', tin-smiths', blacksmiths', and carpenters' shops. It is proposed to do all the construction, both skilled and unskilled, with prison labor, under the supervision of this department.

Waikiki reclamation.—The great importance of the proposed reclamation of the lowlands of Waikiki can not be too strongly emphasized, either in its relation to sanitation and civic beautification, or commercially, in the increased values of property.

Now practically complete, the Waiolama (county of Hawaii) sanitation project offers an excellent example of the benefits to a community and to the owners of property from the sanitation and reclamation of such lands as we have in Waikiki.

Waikiki presents a similar problem, differing only in the quantities dealt with. The difficulties met in the Waiolama project are to be met here—and eventually overcome. Comparing the two projects—

(1) Waikiki has an area of 800 acres, comprising about 200 land titles, while Waiolama has an area of 40 acres, comprising only 30 titles.

(2) The amount of fill which eventually will be required for Waikiki will be approximately 4,000,000 cubic yards, while only 215,000 cubic yards were required in Waiolama.

Drainage is a factor of importance, but offers no serious obstacle, other than that of obtaining a right of way.

Apparently the greatest physical difficulty is to obtain the immense amount of material required for filling, at a cost which will not be prohibitive, and with this difficulty the problem of drainage is intimately related. The solution proposed for the latter also solves the former. By excavating a lagoon connected at either end with the sea, material is made available and drainage is assured.

Early in the last fiscal year plans and specifications were drawn for the filling of one unit, comprising some 47 acres of the entire area to be reclaimed. Grades were established which would readily coordinate this unit with the remainder of the district, when funds should be available for carrying forward the work.

Since these plans for a single unit did not permit, however, of determining costs of the entire drainage system, which, under the sanitation act, must be assessed against the properties benefited according to their areas, the attorney general advised against letting a contract for a portion of the work.

It was then decided to extend the survey to cover the entire project, and an appropriation of \$5,000 was made for this end by the 1917 legislature. This survey is now well under way and, when complete, will include the location of all properties.

A further enactment provides for the appointment of a commission consisting of the superintendent of public works, who shall be the chairman, the city and county engineer, the commissioner of public lands, and two others who shall represent the property owners.

It will be the duty of this commission to prepare data and to present plans and recommendations to the session of 1919 for the legislation thought necessary.

Work for other departments.—Several minor contracts have been executed by the department of public works for other Territorial departments. Of these the principal have been:

1. *Boys' industrial school.*—Lumber, cement, millwork, laundry machinery, ice plant, and steam boiler.

2. *Girls' industrial school.*—Alterations and additions to the dining room; school building, laundry building, and new cottage built; laundry machinery installed.

3. *Kapiolani home.*—Cottage for the Sisters.

This work was planned, contracted for, and inspected by this department.

Survey of new Federal building site.—By request of the United States Treasury Department, a complete survey has been made by this department of the so-called Irwin property, of which the new Federal building will stand. A thorough topographical survey, sub-surface explorations, and a location of all public utilities on or near the site were made. It has been recommended that in placing the building and laying out the grounds as many as possible of the handsome trees now standing be spared.

Storage of oil.—By virtue of the authority vested in the superintendent of public works to insure the safe storage of explosives, the Union and Associated Oil companies have been notified to make several additions and alterations to their plants at Iwilei.

These two companies have seven large steel oil tanks with an aggregate capacity of approximately 230,000 barrels. Should a fire break out on their premises and the tanks be ruptured, there is nothing to prevent the flaming oil from flowing out over surrounding property and into the harbor.

To provide against such a possibility, these companies have been notified to build a concrete wall which will surround entirely their properties and be of sufficient height to contain the capacity of their tanks. The companies have been required further to install more fire-

fighting apparatus, to employ a night watchman who shall make regular rounds, and to take several other minor precautions of a general nature.

Makiki round top road.—In spite of excessive rains last winter, work on the Makiki Round Top Road has gone forward until a connection now has been made at the upper end with the Tantalus Road. The road soon will be opened to the public.

Auwaiolimu streets.—Contracts for the paving of streets in the Auwaiolimu district have been completed.

Aiea homestead road.—In place of a dirt road with maximum grades of 17 per cent, impassable in wet weather, the department has completed a coral road 7,550 feet long with a maximum grade of approximately 6 per cent, connecting the Aiea homesteads with the government belt road. The road was completed in April, 1917.

Testing laboratory.—This department maintains a laboratory for testing and analyzing materials used in construction work and road building, the composition and behavior of which is peculiar to local conditions.

Artesian wells.—The session of 1916 authorized the appointment of a commission to investigate the water laws of Hawaii, which rendered a report recommending changes in the law of 1884. As a result that law was repealed, and the legislature of 1917 passed act 156, which declares that all artesian wells must be capped, cased, and equipped with mechanical appliances to prevent the flow of water, if desired; and that any person boring an artesian well shall keep a complete record of the depth and thickness of the different strata penetrated.

Library.—The accumulation of maps, plans, technical books and pamphlets, sales catalogues, photographs, field books, periodicals, and field instruments belonging to the department of public works and the board of harbor commissioners has become such that a systematized method of filing is necessary. There are at present in the library about 3,500 books and pamphlets, 300 photographs, and 6,000 plans.

HAWAII.

Waiolama sanitation project.—Reports show good progress made between June 30, 1916, when the work was 28.5 per cent complete, and June 30, 1917, at which date it was 92.1 per cent complete. Pumping of the hydraulic fill has lagged behind the remainder of the work. This delay is due to the fact that the contractor has been unable to obtain sufficient beach sand to keep it busy.

The beneficial results of this sanitation work are now obvious beyond dispute. Where before stretched useless, unsightly, offensive swamps, perpetually breeding mosquitoes and always a menace to public health and welfare, is now a gentle slope of clean sand thirty-three and a fraction acres in extent, pleasing to the eye, and sanitary, drained by a canal 20 feet wide and 6 feet deep, carrying the waters of the Alenaio stream in a direct line to the Waioloa River.

Land, a large part of which was formerly under from 5 to 10 feet of water, and of little or no salable value, now brings from 20 to 50 cents and upward the square foot, dependent upon its location.

The cost on which these new values are based varies from a negligible amount, where little filling was made, to 13 cents a square foot, where a large quantity of material was required to bring the surface to grade.

Near the upper end of the canal the Hilo Gas Co. has bought a site for its new plant, and its buildings are now nearing completion. Other firms have made improvements in the vicinity, and Hilo can offer this tract to business interests as a clean and sanitary location.

Kona roads.—At request of the county of Hawaii a report and estimate was made by this department on the cost of improving the belt road between South Kohala and Kau. At this time county funds available were small out of all proportion to the length of the road to be covered—some 70 miles—and the survey made was of necessity only approximate. The ultimate result, however, was an appropriation by the 1917 legislature of \$100,000 for improvement of the belt road along the line surveyed.

Waiakea homestead road.—An appropriation of \$15,000 was made by the legislature of 1915 for a road through the Waiakea Homestead tract, and the wording of the act was such that the road, when completed, must connect the Kuhio Wharf Road with the Volcano Road. Questions of ownership complicated the acquirement of a right of way, but after several surveys and estimates it finally was decided to run due south from the Waiakea Bridge over the Waioloa River, along Manano Avenue to Lanikula Avenue, thence eastward, by a right-angle turn, to Volcano Road.

Although the plans and specifications contemplated either a gravel or crusher-run macadam surface, it was discovered on opening the bids that sufficient funds were lacking, so that only the grading and subbase could be awarded. A contract for this work was let to the county of Hawaii, which began work December 11, 1916, and completed it on April 20, 1917. The road is 7,145 feet long and 20 feet wide. Although the surfacing had to be omitted, sufficient filler was placed on the subbase to carry traffic, and the road now makes a good short cut through the Waiakea district.

Kaieie homestead road.—Transportation by vehicle to the Kaieie Homestead tract is now possible by a road 6,800 feet long and 10 feet wide, where formerly everything had to be packed in on mules or horses. Continuous heavy rains and a subgrade, consisting of soft, sticky, red mud, delayed construction, which was commenced February 29, 1916, and finished February 2, 1917. The road has a hand-laid subbase 6 inches deep topped with 2 inches of macadam.

Puuepa homestead road.—Contract awarded to the county of Hawaii April 4, 1916, and completed May 27, 1916. Work consisted of a section of subbase 150 feet long and 10 feet wide.

Chin Chuch homestead road.—Built of crusher-run macadam, 15,300 feet long and from 8 to 10 feet wide, varying with the width of an old dirt road rebuilt. Awarded November 16, 1915; final payment was made October 31, 1916.

Kikala Keokea homestead road.—A trail 4,000 feet long and 6 feet wide, built of cinders and small rock through a district in which there is no dirt. Completed February 27, 1917.

Hilo Armory.—Extensions, alterations, and additions to the Hilo Armory were contemplated in the previous fiscal period, but the

rapidly advancing costs of materials necessitated several revisions of the plans in order to bring the work within the scope of available funds. The contract was completed June 30, 1917, together with a sidewalk along Shipman Street, leading to the armory. This enlargement furnishes space much needed for military supplies and equipment issued by the United States Government and for which it holds the National Guard of Hawaii responsible.

Heiaus.—The survey of heiaus, undertaken in the previous fiscal period, has been completed and resulted in the following recommendations to the legislature:

(1) A short road from Napoopoo to the Puuhonua, or City of Refuge, South Kona, island of Hawaii.

(2) Minor repairs to the heiau of Lonohakahiki, island of Hawaii.

(3) A trail to the Puu-o-kala of Kamehameha the Great, the last heiau of any consequence erected in the islands, situated a mile and a half distant from Kawaihae, island of Hawaii.

Owing to the mass of demands made upon the legislature for improvements pressingly needed, the limited amount of money available, none of these recommendations traveled further than their first expression.

MAUI.

Lahaina-Lahainaluna road.—Lahainaluna School, the oldest educational institution in the Territory, was for many years accessible only by a steep, rough road. This department recently has constructed an oiled macadam road 5,900 feet long between the port of Lahaina and the school. The line chosen follows a grade nowhere exceeding 8 per cent, whereas the old road, at several of the steeper pitches, touched 14 per cent.

Kuiaha homestead road.—The Maui loan fund commission is now macadamizing a stretch of road 4,100 feet long between the Kuiaha homesteads and the pineapple canneries, for which the department of public works furnished the survey, the subbase and the culverts, finishing its part of the work last September. The road cuts off a mile and a half of heavy hauling and was much needed.

Piikolo homestead roads.—The Haleakala homesteads, named for the mountain on whose slopes they lie, consist of about 2,000 acres of land, cut by three gulches. To provide an outlet from each of these divisions it was necessary to build three roads, which whip back and forth for a total length of 10 miles across the land between the gulches. The main road, 20 feet wide, rises on a grade of 8 per cent to Olinda, whence tourists take the trail for the summit crater. The two other roads are 16 feet wide.

Lahaina swamp reclamation.—The heart of Lahaina is occupied by 11½ acres of Government land, potentially valuable, but now a swamp. A contract has been let for filling and draining, digging a canal to carry off the storm waters, and leveling portions of the Government lot on which the National Guard Armory stands. Work has been started and the date of completion should be about November 1, 1917.

BOARD OF HARBOR COMMISSIONERS.

OAHU.

The largest improvement contemplated for the Honolulu water front is a new concrete wharf designated as Pier 2 and situated on the Waikiki side of the harbor. This structure will be 862 feet long with an outer dock 57 feet wide, supported on reinforced concrete piles. The area behind this outer deck will be filled to grade and probably paved, giving a total width of 212 feet.

Along the outer deck a traveling crane will be provided to allow mechanical handling of lumber from the ship's hold.

On the Fort Armstrong end the rowing association has petitioned the board of harbor commissioners to reserve a section of ground 300 feet long and 100 feet wide, running parallel with the channel, for a swimming course. It is proposed to dredge this slip to a depth of 10 feet and allot the various boat clubs sites for their buildings on the inland side.

That portion of Piers 8, 9, and 10 under contract is rapidly nearing completion. The concrete deck structure of Piers 8 and 9 is finished and Pier 10 is well under way. Tentative designs have been made for fireproof freight sheds to house not less than 40,000 tons, and the board intends to proceed with their construction in the immediate future. The tentative design of the superstructure contemplates second-story galleries along the entire water front for the accommodation of passengers and possible office buildings for water front business, both official and commercial. The entire project is due to be completed September 22, 1917.

Estimated repairs to Pier 16, at prices for materials and labor quoted in January, 1917, amounted to a total of \$75,150.10. Of this amount, \$25,724.96 has been expended up to June 30, 1917. The work remaining is replacing wooden with concrete piles and laying new stringers, decking, and caps. An emergency appropriation of \$10,000 which was provided by the legislature, 1917 session, is being used to perform urgent repairs to Pier 7.

Minor repairs to other piers, consisting chiefly in the replacement of broken and decayed planks and timbers, were done by day labor.

Oil pipe line.—A project that will add appreciably to both the Territory's existing system for the transportation of fuel oil along the Honolulu water front is a new service line on Pier 16. A contract for construction of this line has been let, which provides for placing an 8-inch pipe line, with the necessary valves and fittings, under the deck of Pier 16, connecting by a 10-inch line from the end of the pier with the Territory's 10-inch main line on Queen Street. This line gives direct connection between Pier 16 and the Iwilei storage district and has capacity to care ultimately for as many vessels as the pier can berth.

Extension of wharf shed, Pier 6.—Much additional storage space for freight has been obtained by the construction on Pier 6 of an addition 70 by 89 feet to the wharf shed.

Dredging Honolulu Harbor.—Nuuanu stream empties into the slip between Pier 15 and Pier 16, and there deposits the silt with which it is heavily laden. This process is continuous and, from time to

time, it will be necessary to dredge the slip to full depth if it is to continue in use by steamships of deep draft. A contract for this work is now in force and well advanced toward completion. Between Piers 6 and 7 the slip has shoaled by the gradual action of harbor currents to a depth of between 28 and 30 feet. Plans have been drawn for dredging it to a depth of 35 feet, sufficient to take any vessel now calling at the port of Honolulu, but no contract has been awarded as yet.

Waikiki Beach improvements.—In recent years there has become manifest a tendency of the sea to eat into the Waikiki Beach until property owners, to protect their holdings, have built sea walls along the shore. This practice, now prohibited by the board, has resulted in producing a beach line along which it was impossible for the public to pass without walking on the top of the walls or across private property; such walls cause wave action which tends to wash out the beach.

To serve the public convenience, a project was advanced by the board, which sought, first, to construct a promenade along the beach from Fort De Russy to the public baths, and, second, to build a low sea wall, so placed and designed that the scour of the waves and tides would be stopped and a beach would accrete. In addition, it was proposed to dredge at least three swimming pools, similar to the one at Fort De Russy. A brief outline of the scheme and an estimate of approximately \$90,000 was placed before the legislature but was rejected by the senate finance committee.

HAWAII.

Kuhio Wharf.—Kuhio Wharf and shed, completed in the previous fiscal year, have given continuous and satisfactory service. When the Hilo Wharf was condemned and abandoned, the traffic gravitated to Kuhio Wharf. Quantities of sugar accumulated and there is now in storage 182,016 sacks, or about 11,376 tons.

Mechanical equipment to handle sugar, both to and from vessels berthed at the Kuhio Wharf, has been installed and is now in use. The board originally set aside funds sufficient for the purchase and installation of a complete plant consisting of four separate units, but owing to the advanced prices only one unit could be bought and erected. This unit, with a maximum capacity of approximately 2,400 sacks per hour, and consisting of parallel, drag chain, floor conveyors, one pair of elevators and one cross conveyor, discharging over a hinged arm and by means of a baffle chute, direct to the vessel or barge, has been in operation for some months. By agreement with the board the Hawaii Consolidated Railway (Ltd.) has installed three additional units which the board may acquire whenever funds are available. The completed plant gives Hilo a modern and thoroughly equipped ocean terminal.

Oil pipe line.—An 8-inch oil pipe line laid under the wharf and connected with the 25,000-barrel tank of the Hawaii Consolidated Railway has given excellent service since last August. Four outlets accommodate tankers at almost any position with great dispatch. The 8-inch molasses line has also been in continuous use, but needs more outlets which it is intended to provide.

Range lights.—The United States Lighthouse Department has set range lights for the channel, one on the shed and the other on a tower back of the wharf, so that vessels may enter or leave the harbor safely at all hours.

Honuapo Wharf.—Honuapo Wharf lies exposed to the heavy seas that beat upon the Kau coast. Built in 1911, it was composite construction, the inshore piles of wood, the outer piles of 5-inch steel shafting, with steel braces between and a wooden floor over all. Since then most of the wooden piles have been replaced with well casing, concrete filled.

MAUI.

Dredging Kahului Harbor.—In order to facilitate the safe handling and berthing of vessels in Kahului Harbor, it has been found necessary to dredge an area of approximately 52,000 square feet situate north and west of the northwest corner of the Kahului railway wharf. This area was dredged to a depth of 24 feet below mean low water and approximately 11,000 cubic yards were removed.

Hana and Lahaina Landings.—At the request of the ways and means committee of the Territorial senate, preliminary surveys and estimates were made of the cost of landings at Lahaina and Hana. The estimated cost of a wharf at Hana, with from 18 to 20 feet of water alongside, was \$75,000. This depth was thought sufficient for the steamships and sugar schooners that call. At Lahaina it was estimated a safe boat landing could be provided for \$100,000 by a pier and wharf extending 500 feet outshore. If, however, the pier was to reach beyond the outer line of breakers, it would have to be approximately 1,100 feet long and would cost \$160,000.

On this showing, the legislature did not feel justified in appropriating the money.

KAUAI.

Nawiliwili Wharf.—Nawiliwili Wharf has been lengthened 40 feet by an extension supported on reinforced concrete piles, and the old structure has been repaired and renovated. Three new boat stages have been built and a new 5-ton derrick erected. The old wharf shed has been painted and the wharf double-tracked for a portion of its length in order to permit of handling of freight more expeditiously.

Waimea Bay Wharf.—Waimea Bay Wharf has been completed. The wharf is 557 feet long, 20 feet wide for 467 feet, and 36 feet wide at the outer end, for the remaining 92 feet. Six bents of wharf are supported on concrete piers with wooden caps, 27 bents on reinforced concrete piles, and 7 bents on reinforced concrete beams and concrete cylinders 36 inches in diameter. Track, deck stringers, and decking are of wood.

On the outer end is an open shed 50 feet long and as broad as the wharf is wide, covering a waiting room, storeroom, and office.

Two lines of track extend the length of the wharf, fitted with crossovers at three points, to provide safe passage for automobiles.

Owing to the increasing amount of freight handled at this port, it is imperative that larger and better equipped storehouses be provided.

PUBLIC UTILITIES COMMISSION.

The commission has held 37 regular meetings and 12 special meetings. It has also conducted 47 hearings.

The commission has conducted general investigations into the affairs of the following companies: Waiahi Electric Co. (Ltd.), Kauai Telephonic Co., both of Lihue, Kauai; Hawaiian Electric Co. (Ltd.), Honolulu Gas Co. (Ltd.), Inter-Island Steam Navigation Co. (Ltd.), of Honolulu; Island Electric Co. (Ltd.), Lahaina Ice Co. (Ltd.), of Wailuku and Lahaina, Maui, respectively; Hawaiian Railway Co. (Ltd.), Hilo Electric Light Co. (Ltd.), of Mahukona and Hilo, Hawaii, respectively.

As required by section 2227 of the Revised Laws of Hawaii, 1915, all accidents resulting in loss of life were investigated. The number of accidents are as follows: Oahu Railway & Land Co., 5; Hawaiian Electric Co. (Ltd.), 1; Inter-Island Steam Navigation Co. (Ltd.), 9; and Koolau Railway Co. (Ltd.), 2.

New rates of the following public utilities were approved by the commission: Hawaiian Electric Co. (Ltd.), Hawaii Railway Co. (Ltd.), Inter-Island Steam Navigation Co. (Ltd.), Mutual Telephone Co. (wireless rates), and Hilo Electric Light Co. (Ltd.), and informal complaints against the Honolulu Gas Co., Honolulu Rapid Transit & Land Co., Mutual Telephone Co., and Inter-Island Steam Navigation Co. (Ltd.), relative to rates and loss of property were investigated and disposed of.

The following legislation concerning the commission was enacted during the year: On August 7, 1917, the President of the United States of America approved a bill entitled "An act to amend an act entitled 'An act granting a franchise for the construction, maintenance, and operation of a street railway system in the district of South Hilo, county of Hawaii, Territory of Hawaii,' approved August first, nineteen hundred and twelve, as amended by an act approved July twenty-fifth, nineteen hundred and fourteen."

On August 21, 1916, the President of the United States of America approved "An act granting a franchise for the purpose of manufacturing and supplying gas in the district of South Hilo, county of Hawaii, Territory of Hawaii."

On April 28, 1917, the Legislature of the Territory of Hawaii enacted over the veto of the governor a bill entitled "An act to amend section 2221 of the Revised Laws of Hawaii, 1915, as amended by act 170 of the Session Laws of 1915, relating to the public utilities commission." This bill is now known as act 165, Session Laws of 1917. The important changes made by this act are amendments of the law with regard to the membership of the commission by providing (1) that no member of the commission shall be a salaried officer or employee of the Territory or any political subdivision thereof; (2) that the commissioners shall serve without remuneration.

On May 7, the governor approved act 238 of the Session Laws of Hawaii, 1917, entitled "An act conferring additional power upon the public utilities commission of the Territory of Hawaii." This act gives the commission jurisdiction over certain water companies.

The commission had on hand as a balance in the hands of the treasurer of the Territory on June 30, 1917, \$6,991.48. On July 1,

1916, the unexpended balance on hand at the disposal of the commission was \$14,084.14. The receipts of the commission during the period July 1, 1916, to June 30, 1917, were \$12,236.26. The total expenses of the commission during said period were, however, \$19,328.92, a large part of which expense was incurred in connection with the thorough and extensive investigation of the Inter-Island Steam Navigation Co. (Ltd.), a report on which investigation is in the course of preparation. The balance on hand at the disposal of the commission as of July 1, 1917, was \$6,991.48, which, together with the annual receipts of the commission will place at the disposal of the commission ample funds for the carrying out of the work of the commission.

LOAN FUNDS.

By act of legislature the governor is empowered to appoint a commission for each county and the city and county, consisting of the superintendent of public works, the mayor or chairman of the board of supervisors, and three other persons who are residents of the county or city and county in which public improvements are to be performed from funds loaned to the county or city and county by the Territory, such commission to be known as a loan-fund commission.

At the present time there are four loan-fund commissions, one each for Oahu, Hawaii, Maui, and Kauai.

During the year past the Kauai loan-fund commission has held no meetings and made no expenditures.

OAHU LOAN-FUND COMMISSION.

The following projects have been completed by the Oahu loan-fund commission during the past fiscal year:

1. Installing new electric and new steam piping units at the Kakaako sewer station. (Cost, \$13,246.69.)
2. Laying 6-inch and 8-inch sewers in Lusitana and Pauoa Streets. (Cost, \$2,268.31.)
3. Laying main and side sewers in Puunui district. (Cost, \$21,928.07.)
4. Purchase of 20 fire hydrants. (Cost, \$2,648.80.)
5. Building a 28-inch concrete sewer in Queen Street. (Cost, \$11,697.09.)

The only piece of construction now actually in progress is the Maole conduit, which will carry the stream of that name from Hillebrand Glen to reservoir No. 4, Nuuanu Valley. The contract was awarded for \$19,685, a sum \$13,815 less than the estimated cost. At this writing the conduit is 80 per cent complete.

MAUI LOAN-FUND COMMISSION.

Olinda Reservoir.—The contract for the building of the dam and the excavation of the Olinda Reservoir is still uncompleted. The amount remaining in the appropriation when this contract is completed will be insufficient for the lining of the reservoir, and the legislature was accordingly requested to appropriate the additional amount of \$30,000 to complete this work. It is estimated that the first contract, that for the excavation and the dam, will be completed by November, 1917.

New waterworks.—The work under this appropriation is now completed. The 6-inch intake pipe of the Wailuku-Kahului waterworks was extended about 5,500 feet up the stream to an intake which insures an increased and steadier flow and freedom of contamination from an inhabited drainage area. In connection with this work a bridge was constructed across the Iao stream. The balance of the appropriation was expended for the construction of a 6-inch main from Market Street, Wailuku, to the storage tanks on the Kahului main. This keeps these tanks full at all times, which could not be done with the former 4-inch line.

Kula Farm and Sanitarium.—Both the buildings for a kitchen and dining room and for an ice and cold-storage plant for the sanitarium have been completed, and the machinery in the latter building installed.

Roads.—The following road work has been done in the Haiku-Pauwela-Kuiaha-Kaupakalua, or the pineapple section:

Of the central homestead road 9,450 feet were widened, rebuilt, and macadamized.

A road 3,375 feet long was constructed through lots 10, 29, and 80 of the homesteads.

An extension of the above road was surveyed through lot 33, which extension was built by the Haiku Fruit & Packing Co. in an agreement with the county of Maui.

Of the new road constructed by the public works department 4,100 feet were macadamized, extending from the end of the first loan-fund contract in this district to the East Kuiaha Road.

No work has been done on the Kahukuloa Road, since the loan-fund appropriation was insufficient to carry the road to a point where it would be of any use. When the appropriation by the 1917 legislature becomes available the road can be constructed to the flat above the valley.

Bridges.—A reinforced concrete arch bridge of 58-foot span was constructed over Oheo Creek and a reinforced concrete slab and girder bridge of 20-foot span was built over Mahulua Creek. Both these structures replace timber bridges that were becoming or had become unsafe.

HAWAII LOAN-FUND COMMISSION.

As the commission completed the bulk of its work in 1916, there was very little remaining to be taken up this year.

The Kukaiau section of the belt road was completed in April at a cost of \$29,667.

Work on the Keamoku Road is being done entirely by Territorial prison labor, and although progress is reported slow, hopes for the early completion of this road are entertained.

SCHOOLS.

At the end of the fiscal period the number of pupils enrolled in the public schools was 32,282, a percentage of increase of 6.9, which

is the largest increase since 1913. The figures for the past five years are as follows:

Year.	Enrollment.	Increase
		<i>Per cent.</i>
June, 1913.....	26,631	8.0
1914.....	26,960	8.2
1915.....	28,827	6.8
1916.....	30,205	4.7
1917.....	32,282	6.9

Examinations.—The examination system continues to work well, and the results of the June examination are very creditable to the schools.

Class A, over 15 teachers.

Class B, 10 to 15 teachers.

Class C, under 10 teachers.

Class.	Number in class.	Number of diplomas awarded.	Per cent.
Class A:			
Hilo Union.....	70	70	100
Kaahumanu.....	47	47	100
Kalihiwaena.....	29	27	93
Kailua.....	66	60	90
Central grammar.....	117	101	86
Royal.....	79	64	82
Total.....	408	369	90
Class B:			
Waialua.....	19	19	100
Kamehameha III.....	13	13	100
Aiea.....	6	6	100
Kapaa.....	3	3	100
Waimea.....	15	14	93
Elele.....	12	11	92
Koloa.....	19	15	79
Ililiokalani.....	24	18	75
Ewa.....	8	6	75
Waipahu.....	5	3	60
Pala.....	4	2	50
Total.....	128	110	86
Class C:			
Wailuku.....	17	17	100
Hana.....	4	4	100
Napoopoo.....	2	2	100
Waialeale.....	1	1	100
Normal (practice).....	40	35	88
Mauli H. S. 8th.....	10	9	90
Hakalan.....	9	8	90
Kaula H. S. 8th.....	8	7	87
Honokaa.....	17	14	82
Lalehua.....	5	4	80
Kahao.....	9	7	78
Kahuku.....	4	3	75
Makapala.....	4	2	50
Kipahulu.....	1	0	00
Total.....	131	116	89
Grand total.....	667	595	89
Examined diplomas:			
1917.....	667	595	89
1916.....	679	470	69
1915.....	698	347	50
1914.....	444	287	65

Attendance.—It is particularly gratifying to note that the efforts which have been made to increase the efficiency of the schools, by bringing up the average of daily attendance, continue to be successful, so that this year the daily attendance average for the Territory reaches the point of 93.8. The following table gives the details by islands:

	June, 1915.	June, 1916.	June, 1917.
Oahu.....	93.3	94.7	94.9
Kauai.....	95.5	91.7	95.2
Hawaii.....	93.7	93.9	94.2
Maua.....	90.9	93.0	98.6
Molokai.....	94.1	91.8	94.8
	93.4	93.4	93.4

Expenditures for public schools, by fiscal years, since organization of territorial Government.¹

Fiscal year.	Schools.	Teachers.	Pupils.	Maintenance. ²	New buildings.	Per pupil.	
						Maintenance.	Total.
1901.....	140	352	11,501	\$358,925.72	\$8,773.37	\$29.05	\$39.76
1902.....	143	380	13,189	364,374.72	12,121.54	28.12	39.06
1903.....	144	386	13,793	395,502.64	10,411.02	28.52	39.28
1904.....	147	399	14,467	400,048.84	95,513.71	28.27	34.94
1905.....	154	414	15,202	335,358.59	257,387.12	22.12	39.06
1906.....	151	435	16,119	361,458.99	61,270.87	22.42	36.22
1907.....	153	441	17,138	349,953.14	75,169.88	20.41	24.80
1908.....	154	476	18,554	467,555.05	85,932.17	25.18	29.97
1909.....	153	493	19,507	446,832.60	86,075.94	22.90	27.31
1910.....	152	496	19,909	470,176.08	14,410.41	23.56	24.34
1911.....	155	523	20,597	478,351.19	4,243.41	23.27	23.48
1912.....	156	552	23,752	630,334.65	52,577.92	26.53	30.43
1913.....	151	574	25,631	677,799.72	268,741.78	26.44	36.93
1914.....	168	712	26,990	742,310.63	77,208.85	27.50	30.36
1915.....	170	735	28,827	772,146.88	66,441.42	26.79	29.20
1916.....	171	804	30,205	896,501.33	127,271.01	29.78	33.99
1917.....	168	855	32,282	898,047.78	91,209.88	27.81	30.63
Total.....				9,057,658.55	1,441,760.30		

¹ Maintenance for 1917 includes the following expenditures by counties: repairs and maintenance, \$63,881.39; janitor service and supplies, \$29,023.11; furniture and fixtures, \$18,913.27.

² Exclusive of purchase of sites for schools and expenditure for the College of Hawaii. The amounts for maintenance and new buildings include expenditures by the counties on buildings and grounds as follows: Maintenance, \$35,782.96, \$32,403.63, \$47,799.49, \$43,365.58, \$52,088.28, and \$56,642.30, and new buildings, \$4,243.41, \$4,458.55, \$13,106.71, \$34,064.99, \$11,262.27, and \$66,441.42, for 1910, 1911, 1912, 1913, 1914, and 1915, respectively.

Teachers and pupils, public and private schools.

PUBLIC SCHOOLS, JUNE, 1917.

Islands.	Schools.	Teachers.			Pupils.			Average attendance.
		Male.	Female.	Total.	Male.	Female.	Total.	
Hawaii.....	63	58	188	241	4,984	4,429	9,413	8,867
Maua.....	37	38	94	132	2,460	2,128	4,588	4,056
Molokai.....	8	4	4	8	108	123	231	218
Oahu.....	40	32	326	358	7,293	6,439	13,732	12,032
Kauai.....	20	12	104	116	2,338	1,980	4,318	4,111
Total.....	168	139	716	855	17,183	15,099	32,282	30,293

SUMMARY.

	Schools.	Teachers.			Pupils.		
		Male.	Female.	Total.	Male.	Female.	Total.
Public schools.....	168	130	716	855	17,133	15,099	32,232
Private schools.....	51	91	225	316	3,658	3,088	6,746
Total.....	219	220	941	1,171	20,841	18,187	39,028

Pupils, by races, public and private schools, June 30, 1916 and 1917.

Race of pupils.	Public.		Private.		Total.		Increase 1917.	Per centage increase, 1917.
	1916	1917	1916	1917	1916	1917		
Hawaiian.....	3,222	3,131	608	619	3,835	3,750	175	1.96
Part-Hawaiian.....	3,178	3,536	1,405	1,412	4,583	4,938	355	7.74
American.....	791	878	769	915	1,560	1,793	233	14.93
British.....	106	97	44	55	150	152	2	1.33
German.....	166	187	98	90	264	277	13	4.92
Portuguese.....	4,585	4,744	1,181	1,143	5,716	5,887	171	2.97
Japanese.....	12,564	13,304	2,186	1,068	14,730	14,832	142	.96
Chinese.....	2,891	3,062	1,084	1,014	3,925	4,076	151	3.85
Porto Rican.....	911	1,043	53	98	964	1,111	147	1.52
Korean.....	327	361	135	154	512	515	3	.58
Spanish.....	802	663	86	64	948	727	221	23.31
Russian.....	97	110	31	32	128	142	14	10.94
Filipino.....	144	534	55	51	490	585	95	17.44
Others.....	110	142	41	71	151	212	62	41.06
Total.....	30,204	32,282	7,741	6,746	37,945	39,028	1,083	.....

¹ Decrease.

Percentage of races, public and private schools, June 30, 1917

Races.	Percentage of enrollment.			Percent- age of en- rollment.	Increase 1916-17.		Decrease 1916-17.	
	Public schools.	Private schools.	All schools.	Public schools.	Public schools.		Public schools.	
					Number.	Per cent.	Number.	Per cent.
Hawaiian	8.02	1.59	9.61	9.70	.....	.....	91	30.43
Part-Hawaiian.....	9.04	3.52	12.56	10.92	347	14.80	.....	.....
American.....	2.25	2.35	4.60	2.73	87	3.66	.....	.....
British.....	.25	.11	.39	.30	.....	.....	9	3.01
German.....	.48	.22	.71	.58	21	.88	.....	.....
Portuguese.....	12.16	2.98	15.09	14.70	209	8.79	.....	.....
Japanese.....	35.37	2.69	38.06	42.76	1,240	52.33	.....	.....
Chinese.....	7.85	2.60	10.45	9.49	171	7.20	.....	.....
Porto Rican.....	2.67	.18	2.85	3.28	132	5.55	.....	.....
Korean.....	.98	.39	1.32	1.13	84	1.42	.....	.....
Spanish.....	1.70	.16	1.86	2.06	.....	.....	199	66.56
Russian.....	.28	.06	.36	.34	13	.55	.....	.....
Filipino.....	1.37	.13	1.50	1.65	90	3.78	.....	.....
Other foreigners.....	.36	.18	.54	.44	32	1.34	.....	.....
Total.....	82.73	17.27	100	100	2,376	100	299	100

Pupils, by races, public and private schools, by years, since organization of Territorial government.

Years. ¹	Hawai- ian.	Part- Hawai- ian. 2	Ameri- can.	Brit- ish.	Ger- man.	Portu- guese.	Japan- ese.	Chi- nese.	Porto Rican.	Ko- rean.	Oth- ers. ³	Total.
1900.....	4,977	2,631	699	232	320	3,809	1,352	1,289	-----	-----	229	15,337
1901.....	4,903	2,869	812	240	337	4,124	1,993	1,385	596	-----	290	17,519
1902.....	5,076	2,934	796	215	333	4,335	2,311	1,499	503	-----	250	18,332
1903.....	4,803	3,018	799	217	295	4,243	2,521	1,554	538	-----	337	18,415
1904.....	4,983	3,267	931	226	252	4,448	3,313	1,875	437	-----	285	20,017
1905.....	4,943	3,430	1,025	268	288	4,683	3,899	2,087	405	-----	636	21,644
1906.....	4,906	3,500	1,009	187	273	4,437	4,547	2,197	392	161	281	21,890
1907.....	4,668	3,546	937	220	295	4,537	5,035	2,518	368	210	733	23,087
1908.....	4,575	3,548	930	219	243	4,537	5,513	2,596	355	221	705	23,445
1909.....	4,408	3,681	972	173	276	4,696	6,415	2,830	438	180	620	24,889
1910.....	4,381	3,842	1,076	163	266	4,662	7,078	2,855	372	260	582	25,537
1911.....	4,196	3,738	1,034	155	264	4,699	7,607	3,005	484	283	657	26,122
1912.....	4,253	4,075	1,169	137	308	5,331	9,298	3,272	578	303	1,095	29,909
1913.....	4,290	4,146	1,239	151	270	5,497	10,990	3,783	757	400	1,415	32,938
1914.....	3,949	4,166	1,403	173	263	5,400	11,508	3,612	767	431	1,617	33,288
1915.....	3,866	4,494	1,446	140	308	5,701	13,553	3,916	934	462	1,709	36,529
1916.....	3,826	4,584	1,560	160	264	5,716	14,720	3,926	964	512	1,726	37,946
1917.....	3,750	4,938	1,793	153	277	5,887	14,862	4,076	1,111	515	1,667	39,028

¹ The figures for 1900-1902 and 1904-1907 are as of Dec. 31; for 1903 and 1912 as of June 30; and for 1908-1911 as of June 30 for public schools and Dec. 31 of the preceding year for private schools.

² "Others" in 1913 include 678 Spanish, 234 Filipinos, and 106 Russians; in 1914, 691 Spanish, 243 Filipinos, and 183 Russians; in 1915, 956 Spanish, 145 Russians, and 410 Filipinos, and in 1916, 948 Spanish, 123 Russians, and 499 Filipinos; in 1917, 727 Spanish, 142 Russians, 585 Filipinos.

Pupils, by ages, public and private schools, June, 1917.

Islands and schools.	Under 6 years.	6 years.	7 years.	8 years.	9 years.	10 years.	11 years.	12 years.	13 years.	14 years.	15 years.	Over 15 years.	Male.	Female.	Total.
Public:															
Hawaii.....	2	852	1,131	1,189	1,162	1,040	1,032	943	823	688	309	242	4,984	4,429	9,413
Maui.....	64	430	596	576	611	485	461	430	406	323	154	112	2,460	2,128	4,588
Molokai.....	4	19	32	32	26	21	21	24	22	17	8	5	108	123	231
Oahu.....	13	745	1,414	1,703	1,640	1,539	1,353	1,416	1,208	991	688	902	7,293	6,439	13,732
Kauai.....	-----	367	537	617	568	473	460	415	408	290	126	62	2,338	1,990	4,318
Total.....	83	2,413	3,650	4,177	4,002	3,558	3,337	3,228	2,867	2,309	1,285	1,383	17,183	15,099	32,282
Private:															
Hawaii.....	151	40	32	63	66	65	81	72	96	48	55	121	494	456	950
Maui.....	268	73	80	76	102	78	98	72	87	72	58	71	500	545	1,045
Oahu.....	845	196	210	201	244	266	297	316	301	312	299	1,129	2,571	2,045	4,616
Kauai.....	-----	7	5	13	7	6	13	7	9	8	-----	-----	33	42	75
Total.....	1,264	316	347	353	419	415	499	467	498	440	412	1,331	3,658	3,088	6,746
Grand total.....	1,347	2,729	3,997	4,530	4,421	3,973	3,836	3,695	3,360	2,749	1,697	2,714	20,841	18,187	39,028

Pupils in public schools, by grades, June 30, 1917.

	Hawaii.	Maui.	Molokai.	Oahu.	Kauai.	Total.
Grade 1.....	4,072	1,998	95	4,108	1,572	11,845
Grade 2.....	1,710	745	34	2,382	697	5,568
Grade 3.....	1,283	682	56	2,007	566	4,594
Grade 4.....	833	414	24	1,491	418	3,180
Grade 5.....	768	362	13	1,260	509	2,852
Grade 6.....	369	200	5	827	324	1,725
Grade 7.....	203	92	4	525	131	955
Grade 8.....	102	64	-----	450	70	686
High school.....	133	31	-----	377	31	572
Normal.....	-----	-----	-----	261	-----	261
Specials.....	-----	-----	-----	44	-----	44
Total.....	9,413	4,588	231	13,732	4,318	32,282

Manual work and industrial training, June 30, 1917.

Islands.	Agriculture.	Carpentry.	Cooking.	Lace making.	Weaving.	Sewing.	Care of yard and building.	Paper cutting.	Laundry.	Printing.	Clay modeling.	Sloyd work.	Other manual work.
Hawaii.....	1,696	165	144	367	78	2,369	3,983	590	.....	22	38	570	590
Maui.....	1,096	379	226	102	74	704	26	345	.....	12	.....	.....	73
Molokai.....	49	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Oahu.....	2,182	580	1,167	289	62	2,539	4,546	854	264	248	90	.....	497
Kauai.....	739	219	151	95	35	720	636	636	.....	.....	.....	.....	.....
Total....	5,762	1,193	1,688	853	249	6,192	8,555	2,394	264	282	98	570	1,199

JAPANESE SCHOOLS.

In addition to the statistics in the foregoing tables there are in the Territory 137 Japanese schools given over to the teaching of the Japanese language and other subjects that are peculiarly Japanese. These schools are not considered in line of private schools for the reason that their curriculum does not replace that of the public schools. These schools are attended by more than 14,000 pupils.

The schools are located as follows: 34 on the island of Oahu, 11 being in the city of Honolulu, 24 on Maui, 54 on Hawaii, 24 on Kauai, and 1 on Molokai.

COLLEGE OF HAWAII.

The college year 1916-17 has been one of satisfactory progress. There is a steady increase in the number of undergraduate students registered for a degree, the year just finished showing 27 per cent more of this class of students than the previous year. The 110 students enrolled were divided as follows according to nationality:

Caucasian.....	79	Hawaiian or Part-Hawaiian.....	5
Chinese.....	13	Korean.....	4
Japanese.....	8	Hindu.....	1

The first student to be graduated from the newly established course in sugar technology received his degree this June.

The plan of planting the campus as an arboretum of tropical and subtropical trees, shrubs, and climbers is now well under way, and through the generosity of a number of Honolulu people is assured of rapid progress. A considerable area of newly cleared land is being added to the farm and the experimental plantings of a variety of crops are being largely increased.

A regular undergraduate is a student who presents satisfactory entrance credits and pursues studies leading to the degree of bachelor of science.

A graduate student is one who after graduating from a college or university is pursuing studies at the College of Hawaii which may or may not lead to the master's degree.

A special student is one who presents satisfactory evidence of previous training and pursues one or more studies of the same grade and in the same classes with regular students, but is not following a program leading to a degree. A few of the special students are

carrying only one study, and at the other extreme are a few carrying programs nearly as heavy as regular students. More specials are registered in classes in domestic arts and sciences than in any one department; the others are scattered through all the departments.

An extension student was one who was not working for credits and was not held to the same requirements of preparation, work, and attendance as regular and special students. Because of the unsatisfactory scholarship and attendance of this group they were not received after the academic year of 1914-15.

Following is a summary of students since I have been connected with the college:

Years.	Regular under-graduates.	Graduate students.	Special students.	Extension students.	Total.	Total working for credits.
1914-15.....	21	3	41	79	144	65
1915-16.....	33	6	66	.....	105	105
1916-17.....	42	2	66	.....	110	110
Registration September, 1917..	57	2	55	.....	114	114

It is to be noted that the registration of regular students is over two and one-half times what it was three years ago this fall. The class which entered three years ago is now our senior class; at the close of its freshman year it numbered eight members; it now numbers eleven.

Nationality of graduates.

1912.		1916.	
Caucasian.....	3	Chinese-Hawaiian.....	1
Chinese.....	1	Caucasian.....	1
1913.		1917.	
Caucasian.....	4	Caucasian.....	3
Japanese.....	1	Present senior class:	
1914.		Hawaiian.....	1
Caucasian.....	4	Caucasian.....	1
1915.		Chinese.....	6
Caucasian.....	1	Japanese.....	1
Japanese.....	2	Hindu.....	1
		Korean.....	1

Summary of employees.

Professors.....	12	Librarian.....	1
Botanist.....	1	Stenographer.....	1
Assistant professor.....	1	Farm foreman.....	1
Instructors.....	5	Regular farm laborers.....	4
Assistants.....	2		

Territorial appropriation, July 1, 1916, to June 30, 1917.

Receipts, salaries, pay roll, and expenses available for the year..... \$12, 979. 52

Expenditures:

Executive and office.....	\$3, 874. 57
Buildings, upkeep.....	1, 625. 99
Grounds, upkeep.....	1, 295. 09

Expenditures—Continued.

Furniture	\$80. 88	
Library	1, 293. 61	
Publications	301. 30	
Records of Manoa stream flow	83. 00	
Instruction in—		
History	924. 26	
Art and design	1, 714. 45	
Languages	1, 806. 00	
Psychology	30. 30	
Balance .....	. 07	
		\$12, 979. 52

Receipts, buildings, grading, and improvements, available
for the year

872. 37

Expenditures:

Roads	\$77. 53	
Campus improvement	668. 76	
Farm lands improvement	72. 93	
Irrigation system	53. 15	
		872. 37

SPECIAL FUNDS.**Receipts:**

Balance forwarded	1. 39	
Farm	4, 020. 11	
Textbooks	892. 13	
Scholarships	400. 00	
Cooking fees	160. 00	
Ceramic supplies	78. 17	
Miscellaneous	148. 65	
		5, 696. 45

Expenditures:

Farm	3, 955. 49	
Textbooks	798. 18	
Scholarships	400. 00	
Cooking supplies	158. 58	
Ceramic supplies	215. 29	
Miscellaneous	162. 20	
Balance forwarded	8. 71	
		5, 696. 45

FEDERAL FUNDS.**Receipts:**

Balance forwarded	883. 07	
Installment for 1916-17	50, 000. 00	
		50, 883. 07

Expenditures:

Instruction in—		
Agriculture	6, 769. 03	
Engineering	10, 841. 47	
English	3, 261. 40	
Mathematics	2, 823. 97	
Economics	1, 966. 00	
Natural and physical sciences	25, 220. 06	
Balance forwarded .....	. 54	
		50, 883. 07

INDUSTRIAL SCHOOLS.

There are two industrial schools in the Territory—one for boys, situated at Waialea, on the northern shore of the island of Oahu, and one for girls at Moiliili, a suburb of Honolulu. These institutions at present receive and care for all the delinquents, of all ages and nationalities, of the Territory who are not paroled or put on probation by the juvenile court in Honolulu or the circuit judges of the other islands, who also sit as juvenile judges. The instruction

in these schools, which are becoming more and more self-sustaining, is chiefly of a vocational nature, children receiving a portion of their earnings.

A detention home, within easy access of the juvenile court in Honolulu, has been established during the past year and supported by the city and county of Honolulu, to care for children awaiting trial, dependents not yet permanently provided for, and sometimes paroled juveniles.

The three institutions are under the control and supervision of a board of industrial schools created by act 81, Session Laws, 1915, taking effect January 1, 1916, with all the powers and duties formerly belonging to the board of public instruction. The board is appointed by the governor and consists of seven persons, three of whom must be women, with the judge of the juvenile court an ex officio member.

The board of industrial schools made its first annual report January 1, 1917, to the governor and legislature of Hawaii, showing the needs, progress, and activities of the year. Since that time it has received a substantial increase in funds for maintenance and new buildings, emergency funds to cover deficits of the schools, and a sum of \$250 a month for the maintenance of a detention home for boys, besides an appropriation for a detention home for girls.

Boys' school.—The aim of the boys' school has been to fit the child mentally, physically, and morally; to turn out young men with a positive interest in life, a training to pursue such interest successfully, and a personal ambition.

The school is ideally located for its purpose. The grounds consist of 600 acres, of which 120 are tillable and the remainder pasture land. Farming is carried on to a sufficient extent to supply the needs of the school. Released boys have done well in the trades taught them and have succeeded in making a good livelihood; consequently special attention is paid to this department.

The value of manual training, both theoretical and practical, has become the most important factor of the institutional work. The boys have completed during the year a splendid concrete structure, which is now equipped with a modern boiler plant, complete machine shop, and a good woodworking and electrical plant. There is also a blacksmith shop. During the coming year it is proposed to install a tailoring department.

Physical training is deemed an important factor in building up character. To this end the school has been organized on a military basis, which has resulted in apparent and beneficial change in the boys. There have also been instituted gymnasium classes, morning exercises, athletic games, and lectures on anatomy and kindred topics have been given. In connection with the military side of life there has been organized a band of 20 pieces, which has made excellent progress, the Hawaiian boys being naturally musical.

A partial self-government plan has been established, and when more instructors are added to the staff it is hoped that the plan may be made complete. Honor cottages will be built, and it is deemed desirable to segregate the boys of different ages.

A new parole system has been put into effect during the past few months. After a boy has earned 5,000 credits by good conduct and

workmanship he is eligible for parole. Before he can be paroled, if he is a small boy, his parents or relative must guarantee that he will attend school, and sign an agreement to that effect; if he is older, a position must be guaranteed. Once a month all paroled boys must report to a parole officer, showing a detailed card furnished by that officer.

Girls' school.—The girls' school is established on the cottage plan. This system has proved efficient and satisfactory, giving as it does an opportunity to segregate the girls. This helps to remove the idea that the institution is solely for punishment.

During the past year there has been inaugurated a new system of discipline which has worked successfully and is of much educational value. Aluminum money is given, instead of credits, with which the girls are required to buy all clothing and incidentals needed at the institution.

The girls are given an academic and industrial training. In the industrial department every effort has been made to make the branches taught practical. Training is now given in laundry work, mat and rug weaving, garment making, cooking and general housework. Agricultural classes look after the lawns, flowers, and vegetables.

The recreation grounds have been greatly improved, giving more opportunity for outdoor games. Tennis courts are now being built. One new cottage has been erected, and 2.26 acres of adjoining land obtained, during the year, from the government. By convict labor much new land has been brought under cultivation, which has made possible the enlargement of vegetable gardens and additions to the dairy herd.

Industrial schools, 1916-1917.

	Inmates June 30, 1916.	Inmates July 1, 1917.	Admitted during year.	Re- leased.	Re- leased on parole.	Re- turned from parole.	Average number of in- mates.	Cost per inmate per day.	Number of in- struc- tions.
Boys' school.....	177	162	122	116	104	9	169	0.68	14
Girls' school.....	117	96	70	35	33	15	104	.558	10
Total.....	294	257	192	51	137	24	273	.....	24

¹ Nine to jail, 7 becoming of age.

LIBRARY OF HAWAII.

Much progress has been shown in the various departments of the Library of Hawaii during the past fiscal year.

There were added to the library during the year 4,380 volumes, 158 volumes were withdrawn, leaving 4,222 as the net gain for the year. As compared with the previous year this is an increase of 1,307 in number of volumes added and 1,521 in the net gain.

Readers' cards were issued to 2,469 not previously registered, 1,289 to adults, 1,180 to children. This is a gain of 578. The cards of 1917 readers have expired and have been taken up. Six hundred and fifty-six of these have reregistered. The total number of cards now in force is 7,827.

The circulation from the main desk was 97,763 volumes, an average daily circulation of 325 and a gain of 12,159. From the islands de-

partment were sent out 14,823. The total circulation reported from the various stations was 21,293, a gain of 67 per cent. The total circulation for the year, including stations, was 119,050, which is 20,746 more than that of the preceding year.

In the reference department 4,503 topics were looked up and 7,033 books given out for reference use, a gain in each instance of nearly 500. The attendance in the reading room was 52,561, an increase of 7,739.

Four thousand three hundred and eighty volumes were catalogued, the cards written for the card catalogue, and the accession records made. In the work room 2,362 volumes were repaired.

In the children's department the last year has been the most successful since the opening of the library. A circulation of 84,857 volumes, an attendance of 23,139 in the children's reading room, and an attendance of 5,001 at the library story hour.

Library instruction was given to 11 groups from eighth grade classes, comprising 379 pupils.

Reviewing the year's work in the islands department we find a steady gain both in number of stations established and in books circulated. In January the distribution of stations on the various islands was as follows: Hawaii, 15; Kauai, 39; Maui, 42; Molokai, 4; Oahu, 52. The much larger number of stations on these islands that have been canvassed in the interest of library extension shows the value of personal contact in awakening interest.

The number of books issued from the islands department was 14,823, as compared with 9,241 last year. The circulation reported was 21,293.

As the library seeks, through the children's department, to supervise the reading of its juvenile patrons, so the islands department tries to foster a taste for good books among the children who may be reached by the libraries sent out. To this end small collections have been placed in the schools and exchanged at intervals of three months.

ARCHIVES OF HAWAII.

The work of making typewritten copies of the letters contained in the 112 letterpress books of the former interior department, mentioned in previous reports, has been completed, and the copies bound, thus insuring the preservation of the valuable records contained in them. Similar work is now being done on the books of the department of public works, 56 in all, 11 of which have been copied to date.

The records and letters of the foreign office are indexed to 1850, and those of the interior department to 1855. On account of more pressing matters, this work has been discontinued for the time being, but an arrangement and classification has been made that is almost an index in itself.

There has been a complete cross index made of the 14 volumes of Records of the Privy Council. As all land titles date back to the action of this council, the need of an index has been long felt. Frequently a seeker of information would examine these records for days, with greater or less success; now all matters contained in them are immediately available.

With the completion of this index, the indexing of the correspondence of the interior department relating to land matters, which correspondence is segregated from that of the general correspondence of the office, was begun.

On the completion of additional filing facilities in the vault, a large mass of documents that had been stored in a room in the basement of the capitol building was removed to the archives building. These documents consisted largely of those collected on the island of Hawaii several years ago. The greater part has been segregated and filed, and the balance soon will be.

At the request of the Hon. Wade Warren Thayer, then secretary of the Territory, the librarian compiled from the official records a brief history of the courts of Hawaii, which was published in Thayer's Digest of Hawaiian Reports. With this history a list of the judges of the several courts was given, it being the first compilation and publication of those of the circuit courts. In this connection there was also published the first correct list of the attorneys general.

There has been received into the archives a large number of documents of the departments of public works and public instruction, the records of the Banana Claims Commission and miscellaneous documents of the governor's and secretary's offices.

Work on the revision of the Hawaiian Dictionary, which was placed under the supervision of the board of archives by the legislature of 1913, has continued steadily during the year and progress has been made as rapidly as consistent with accuracy, but it will be two or three years before the work will be ready for publication.

THE COURTS.

TERRITORIAL COURTS.

The Territorial courts comprise a supreme court of three members; 5 circuit courts, of which 1 has three members, who sit separately, and the others one member each; and 29 district courts. The supreme court and circuit court judges are appointed by the President and the district magistrates by the governor of the Territory. The circuit courts are the courts of general original jurisdiction. They try criminal, law, equity, probate, and divorce cases. The first circuit court acts also as a court of land registration. The circuit and district courts act also as juvenile courts, the principal juvenile court being presided over by one of the judges of the first circuit court.

The following tables show the cases by courts, classes of cases, and nationality of convicted in criminal cases:

Court statistics, calendar years.

TOTAL CASES IN ALL COURTS.¹

	1914	1915	1916
Criminal cases.....	11,336	12,199	12,131
Civil cases.....	3,150	3,465	3,066
Total.....	14,486	15,664	15,197
Convictions in criminal cases.....	7,984	9,439	9,873
Percentage of convictions.....	70	77	77

¹108 insanity, 637 juvenile court cases not included.

CASES CLASSIFIED BY COURTS.

	1914	1915	1916
Supreme court.....	61	87	83
Circuit courts.....	1,440	1,745	1,544
District courts.....	12,985	13,532	13,570
Total.....	14,486	15,364	15,197

CASES IN SUPREME COURT.

On appeal, error, or exceptions:			
Law.....	23	37	26
Equity.....	13	13	15
Divorce.....	1	3	4
Probate.....		3	3
Criminal.....	5	11	17
Original.....	5	10	6
Miscellaneous.....	14	12	12
Total.....	61	87	83

CASES IN CIRCUIT COURTS.

Civil:			
Law.....	265	433	230
Equity.....	39	103	64
Divorce.....	351	410	407
Probate.....	225	331	341
Miscellaneous.....	9	9	2
Total.....	899	1,291	1,104
Criminal.....	551	454	440
Grand total.....	1,440	1,745	1,544
Convictions in criminal cases.....	309	243	233
Percentage of convictions.....	54	76	74

CASES IN DISTRICT COURTS.

	1914	1915	1916
Civil.....	2,205	2,098	1,898
Criminal.....	10,780	11,734	11,674
Total.....	12,985	13,832	13,570
Convictions in criminal cases.....	7,675	9,091	9,294
Percentage of convictions.....	71	77	79

RACES OF PERSONS CONVICTED.

Races.	Estimated population June 30, 1916.	Number convicted 1916.	Percentage of population convicted 1916.
Hawaiian.....	39,300	1,191	3.03
Chinese.....	22,100	1,240	5.61
Japanese.....	102,479	2,574	2.51
White (including Portuguese).....	57,028	1,052	1.84
Others.....	29,720	3,515	11.83
Total.....	250,627	9,572	3.82

CONVICTIONS IN CRIMINAL CASES, BY CLASSES OF CASES.

	1914	1915	1916
Offenses against property.....	513	630	461
Offenses against chastity.....	308	313	422
Offenses against the peace.....	1,008	1,058	1,045
Gambling.....	3,521	4,482	5,012
Liquor selling, distilling, etc.....	146	105	143
Drunkenness.....	755	742	802
Homicide.....	21	17	13
Miscellaneous.....	1,717	2,122	1,674
Total.....	7,984	9,439	9,573

¹ Homicide, 1915, manslaughter, 4; murder, 12. Homicide, 1916, manslaughter, 2; murder, 11.

JUVENILE COURT.

The principal court handling juvenile cases is located in Honolulu, being presided over by one of the circuit judges of the first circuit, who is assigned for that purpose by the chief justice of the supreme court. The incumbent has had charge of this work for less than two months but evidences an adaptability that is particularly necessary in caring for juvenile offenders. The circuit judges of the other circuits, and to a small extent the district magistrates throughout the Territory, sit as juvenile judges. There are several salaried officers employed in this work besides a number of volunteers.

Cooperation with the industrial schools is proving valuable in the juvenile work. Report of these schools will be found elsewhere in this report. Dependents are placed in private homes, private institutions and public institutions by the judge of the juvenile court. Delinquents not paroled are committed to either the boys' or girls' industrial schools, where their work and education is of a vocational nature and partially self-sustaining.

The number of cases coming before the juvenile court of Honolulu during the fiscal period were 650. Of these 486 were boys and 164 girls. Of the boys 455 were delinquent and 31 dependent cases. Of the girls 105 were delinquent and 59 dependent. Boys included 203 Hawaiian, 99 Portuguese, 67 Chinese, 40 Japanese, and 46 of all others; the girls 56 Hawaiian, 12 Portuguese, 11 Japanese, 10 Chinese, and 16 of all others. Of the boy delinquents, 69 served the period of probation and were discharged, the same being the case with 29 of the girls; 92 boys and 42 girls were committed to the industrial schools without probation; 68 boys and 12 girls were reprimanded and discharged; 23 boys were surrendered by the probation officers and 1 referred to the district magistrate. The charges were as follows: Assault and battery, 30 boys and 8 girls; violating curfew law, 31 boys; disobedience, 13 boys and 9 girls; gambling, 25 boys; idle and dissolute, 45 boys and 12 girls; larceny and kindred offenses, 108 boys and 9 girls; truancy, 120 boys and 37 girls; other offenses, 83 boys and 35 girls. Of the dependent cases, 10 boys and 23 girls were committed to private homes, 16 boys and 30 girls to private institutions, 5 boys and 6 girls to public institutions.

LAND COURT.

One of the judges of the first circuit court is assigned to land-court cases by the chief justice of the supreme court. During the fiscal year 30 petitions were filed, while 56 were pending at the close of the

last fiscal period; 17 decrees were issued, including an area of 180.005 acres, while 44 petitions were held pending registration with an area of 11,269.287 acres. The assessed value of the lands included in titled registered is \$417,321, while the value of that held pending registration is \$350,578.39. The total value of lands included in titles registered and pending registration is \$767,899.39.

Fees were collected to the amount of \$2,846.07, of which \$848.63 was for the assurance fund.

FEDERAL COURT.

The Federal court located in Hawaii is a United States district court, with the jurisdiction also of a United States circuit court. There are two district judges, a United States district attorney and assistant affiliated with this court.

The civil cases brought in this court during the last fiscal year numbered 51, comprising 16 bankruptcy, 12 admiralty, 12 United States civil, 4 other civil, and 7 habeas corpus cases, as compared with 61 cases for the preceding year, comprising 35 bankruptcy, 8 admiralty, 9 United States civil, 2 other civil, and 7 habeas corpus cases.

Criminal cases numbered 51, as against 96 for the previous year, accounted for as follows: Unlawfully importing, etc., opium, 22; adultery, 7; embezzling post-office funds and selling liquor without payment of special tax, 3 each; counterfeiting, making or presenting false claims, stealing, etc., on United States reservation, violation of white-slave traffic act, narcotics, 2 each; discriminating against United States uniform, illicit distilling, perjury, receivers, etc., of stolen public property, stealing, etc., mail matter, violation of tariff act of October 3, 1913, 1 each.

Convictions to the number of 42 were secured, 5 were acquitted, 1 case nolle prossed, and 1 case is pending.

There were pending in this court at the close of the fiscal year 96 cases as follows: Forty-nine bankruptcy, 17 United States civil, 13 criminal, 12 habeas corpus, 3 admiralty, and 2 civil other than United States.

ATTORNEY GENERAL'S DEPARTMENT.

The attorney general is the legal advisor of the heads of the departments, the high sheriff, the district magistrates, the many Territorial boards, such as the board of health (of which the attorney general is, by virtue of office, a member), the board of harbor commissioners; the public-utilities commission; the loan-fund commissions of the several islands; the board of liquor license commissioners of the several islands; the board of immigration, labor, and statistics, the board of agriculture and forestry; the board of prison inspectors, etc.; and other public officials in all matters connected with their public duties. Much of this work consists of drawing up or passing upon forms of contracts and bonds of contractors with the Territory, deeds, licenses, patents, and other documents relating to land transactions, corporation charters, etc. The nature of this work prevents it being reported in detail as it is as broad and varied as the work of the several departments. Though the advisory work is very important and has been heavier than usual during the last year, the

court work constitutes an important feature of the work of this department. The prosecution of criminal cases in the various courts has been handled by the county attorneys who are by law deputies of the attorney general and charged with this work.

A number of important civil cases have been handled by this office during the year. The department appeared in 147 cases—2 in the United States district court, 1 of which was finished and the other still pending; 8 in the Territorial supreme court, 6 being finished and 2 pending; 46 in the circuit court, 26 finished, 20 pending; 38 in the Territorial land court, 22 finished, 16 pending; 4 leper divorce cases, all finished; 49 tax appeal cases, 1 in the first division, Oahu, finished; 1 in the second division, Maui, finished; 44 in the third division, Hawaii, 30 finished, 14 pending; 3 in the fourth division, Kauai, finished.

TERRITORIAL PRISON.

Work on the new prison building has progressed satisfactorily during the year.

All Territorial felons, all Federal prisoners, both misdemeanants and persons awaiting trial, as well as felons, are retained in the Territorial prison. There are two Territorial reform schools, one for boys and one for girls, to which delinquents are committed by the juvenile court. These schools on January 1, 1916, came under the control of a board of industrial schools, created by the 1915 legislature, having previously been cared for by the department of public instruction.

The warden of the Territorial prison is also high sheriff of the Territory. During the year he served 1,944 subpoenas, writs, summonses, etc.

There were on hand July 1, 1916, 511 prisoners, 491 being Territorial and 20 United States. There were received during the year a total of 256, of these 141 Territorial and 115 United States. There were discharged during the year a total of 176, of these 70 Territorial and 106 United States, leaving on hand June 30 a total of 591. The reasons for discharge of criminals were: Expiration of sentence, 74; took poor convict's oath, 9; died, 6; executed, 1; pardoned, 9; by order of the President of the United States, 5; by order of court, 4; on bond, 42; deported, 1; by order of United States commissioner, 2; convicted, 22; nolle prosequi, 1.

A number of Territorial prisoners were employed on various works throughout the Territory, including the new prison, which is being practically entirely constructed by convict labor. The percentage of nationalities follows:

Nationality.	Male.	Female.	Nationality.	Male.	Female.
Hawaiians.....	15.88	.....	Russians.....	1.01	.....
Japanese.....	11.66	0.17	British.....	.33	.....
Chinese.....	6.25	.....	Mexicans.....	.17	.....
Koreans.....	6.08	.....	Spanish.....	1.18	.....
Filipinos.....	34.13	.....	Norwegians.....	.33	.....
Porto Ricans.....	9.97	.....	Samoans.....	.17	.....
Americans.....	6.90	.....	Germans.....	.67	.....
Portuguese.....	5.07	.....		

The expenditures for the year were: Pay of guards and lunas, \$24,261.07; support of prisoners, \$36,604.06, making a total of \$60,865.13; the average cost per day of a prisoner being 51 cents plus. The receipts for the support of United States prisoners amounted to \$3,091.50.

During the period there were 3,252 on sick report, the majority being ailments of a minor nature, together with injuries suffered in the course of labor, classified as minor surgery.

Drainage and ventilation conditions have been of the best possible, which, together with the various forms of recreation, drills, honor system, music, etc., have greatly improved the morale of the inmates.

The last legislature provided for the establishment of systems for the identification of criminals and those persons suspected of criminal acts and also the institution of certain payments to prisoners for work done by them.

PUBLIC HEALTH.

The greater part of the public health work is cared for by the Territorial board of health, although some is handled by the local governments and great assistance given by various corporations, organizations, and individuals financially and in other ways. The United States Public Health Service and the Territorial board of health accomplish a great deal through cooperative efforts.

The health of the Territory during the past year has been good. This statement is based on an analysis of the year's mortality and morbidity reports which show that notwithstanding an increase in the population there were 442 less deaths as well as a decrease of 2,573 in the number of contagious diseases reported.

The mortality reports are published elsewhere in tabular form.

During the year the board of medical examiners has recommended for licenses 12 practitioners, and at the close of the fiscal year there were 138 licensed physicians in the Territory, divided as to nationalities as follows: Americans, 72; Japanese, 44; British, 11; Germans, 4; Chinese, 4; Portuguese, 1; Norwegian, 1; and Korean, 1.

The board after a hearing requested the treasurer to revoke the license of a Japanese physician on account of gross carelessness and manifest incapacity, and other violations of the laws governing the practice of medicine have been reported to the attorney general and the city and county attorney.

Whenever necessary, the various islands of the group have been visited and the regular educational work on health and sanitation has been carried out during the year.

The Government employs 25 physicians, who have collectively visited 10,074 homes, received 8,654 office calls, filled 16,410 prescriptions, examined (exclusive of Honolulu) 18,185 school children, vaccinated 3,235, performed 53 post-mortems, and traveled 27,538 miles at an expense of \$25,225.19. There were made in Honolulu 88 autopsies, of which number 30 were for the Territory and 45 for the coroner. Investigations of unattended deaths were 68.

The Kalaupapa store revolving fund authorized by the 1915 legislature has worked out well, and is proving much more satisfactory than the former method of a specific appropriation.

The principal considerations of the board of health are: Leprosy, tuberculosis, sanitation, and pure food, which will be treated under separate subheadings.

The board of dental examiners report that there were 33 dentists in practice in the Territory of Hawaii at the close of the last fiscal period. There are now 38, 5 new members of the profession having been admitted to practice during the year; also a large number of inquiries as to conditions on the islands have been received and given attention by this board.

A number of inquiries come from Chinese and Japanese students, born in Hawaii and who are now taking courses in the best universities on the mainland, and as this class of dentists is very much needed, it is hoped that a sufficient number will be available to care for the teeth of these races.

MORBIDITY STATISTICS.

There were 1,864 cases of contagious and infectious diseases reported during the last period, a decrease of 2,578 over what was reported in the previous year.

In cerebrospinal meningitis, enteric fever, paratyphoid fever, dengue, scarlet fever, tetanus, and varicella, an increase is noted while there was a decrease in follicular conjunctivitis, diphtheria, amœbic dysentery, leprosy, measles, infantile paralysis, plague, trachoma, and tuberculosis. Some of the increases were rather small, but enteric fever was an exception, where there was an increase of 71 cases due to two small epidemics at Hilo and Kukuihaele from contaminated water supplies, and also to a larger number of cases than usual in Honolulu.

The number of cases reported by diseases is as follows: Cerebrospinal meningitis, 12; follicular conjunctivitis, 1; diphtheria, 119; amœbic dysentery, 12; enteric fever, 201; paratyphoid fever, 26; leprosy, 54; measles, 206; dengue, 6; infantile paralysis, 4; pertussis, 141; plague, 3; scarlet fever, 6; tetanus, 16; trachoma, 67; tuberculosis, 900; varicella, 87. One case of variola was taken from the steamer to the quarantine station.

It is evident from the number of certain diseases reported, such as dengue, follicular conjunctivitis, and varicella that there must have been a larger number, but it is a difficult matter to get reports on these as in many instances a physician is not consulted and when they are they very often neglect to report. All of the plague cases occurred in the Hamakua district. The same policy of following up cases of typhoid and paratyphoid has been continued during the past year, and wherever possible the cases have been removed to a hospital. Of the cases of tuberculosis reported from Honolulu, 43 were transients chargeable as follows: Oahu, 20; Maui, 1; Hawaii, 14; and Kauai, 8.

SANITATION.

The work of the sanitary engineer is becoming more important every year as the scope of the work is being broadened. Considerable work was done in connection with the water supply in Nuuanu Valley

and Hildebrand Glen. This water supply is still far from being a safe one and is below the standard adopted by the United States Public Health Service. It is believed that the Honolulu waterworks realizes the condition of this water and in time will take steps to remedy it. The chlorination plant for the Nuuanu supply is at present the only safeguard.

A large number of water supplies all over the islands have been investigated and numerous analyses made.

Advice as to the remodeling of plantation camps at Hana, Maui, was furnished by the engineer. A sewerage system for the new sanatorium at the insane asylum was laid out. The investigation of typhoid cases was under the sanitary engineer. The installation of a temporary chlorination plant at Hilo was supervised by this bureau. Laboratory facilities were further improved and a larger number of analyses of water can be made.

Many of the tenement houses constructed in Honolulu in 1900 are getting in such a condition that it is only a question of a short time before they will have to be condemned as being unfit for human habitation. The campaign for rat-proofing buildings is still being carried on, as is also the work of inspecting the plantations and small villages. While considerable opposition to the latter has been manifested in some quarters this is being gradually overcome and work is progressing more satisfactorily than it was a year ago, and improvements of a permanent nature may be noticed on all the plantations and in nearly every small village.

The filtration plant installed by the Hawaiian Commercial & Sugar Co. on the island of Maui, at a cost of \$250,000, is working well and supplies 28 camps on that plantation.

RAT AND MOSQUITO CAMPAIGN.

The rat and mosquito campaign has continued with satisfactory results.

As in former years, the United States Public Health Service was in charge of this campaign and the seven trappers employed in Honolulu were paid by the Territory. While on account of the small number of men employed it was only possible to regularly cover the territory near the water front, yet whenever requests have been for assistance from people residing in other parts of the city help has been given.

The number of rats, mice, and mongoose trapped were 797 less than last year, but the average of traps set daily was the same, namely 984. Altogether there were 17,530 rats, mice, and mongoose taken, of which number there were 17,155 rats and mice trapped, 112 mongoose trapped, 259 rats were killed by sulphur dioxide, and 14 were found dead. Of this number 14,493 were examined macroscopically and microscopically and none found to be plague infected. While it is now over seven years since an infected rat was found in Honolulu the safety of the community requires that the campaign be kept up, for it is only by this means are we able to feel assured that we are not getting a new infection from one of the many ships calling here

from the plague centers of the Orient and west coast of South America. The total cost of the rat campaign in Honolulu was \$4,455.20.

On account of there being an endemic foci of rat plague in the Hamakua district, this campaign has had to be carried on most vigorously on the island of Hawaii. The plantations from Olaa to Kukuihaele all furnished rat catchers, who worked under the supervision of the chief sanitary inspector, while the campaign in the villages was carried on by the board of health rat catchers.

The number of infected rats found were 4, which was 11 less than were reported last period. The last infected rat was found at Paauhau on June 8, 1917.

The number of rats and mongoose trapped or found dead and received at the Hilo laboratory was 138,516, of which number all were examined macroscopically and 22 were further examined microscopically, while 7 were examined bacteriologically, with the result above mentioned.

Considerable efficient work was done in Honolulu toward the elimination of the mosquito, and the results are most satisfactory. The expense in Honolulu was \$11,274.25. The work in Hilo was also vigorously prosecuted and to a certain extent on Maui.

MEDICAL INSPECTION OF SCHOOLS.

For a number of years past there has been an inspection of school children, but mainly for the detection of contagious and infectious diseases and for vaccination. The 1915 legislature made an appropriation for the medical supervision and treatment of school children, with the idea of extending the scope of the examination so that certain defects which were known to exist among the children might be remedied. It was considered advisable to commence this work in the Honolulu schools so that the methods employed could be more closely followed. In February, 1916, Dr. L. L. Patterson was appointed medical inspector of schools. Cards were prepared, giving the principal defects that were anticipated. Each pupil was furnished a card of sufficient size to cover the five-year period. Those of the pupils desiring an examination by private physician were allowed to do so, the only stipulation being that the supplied card be used, so as to make all reports uniform.

The work this past year has been carried on by the plans formulated during the 1915-16 school year. The card system instituted then is still being carried out, and with but a few exceptions our indexing of the pupils gave us no trouble, although some of the orientals prefer to change their names seemingly with each new grade or school.

Six schools outside of Honolulu were examined, and this, with the increase of school population in the city, brought the total examinations up to 10,648, compared with 8,117 last year.

The number of defects found in this 10,648 were 9,481, some pupils having more than one defect, with some even having as high as four defects. The unvaccinated were not counted in this defective number, but 1,967 pupils were vaccinated by me during the year.

Twenty-eight schools were visited, and in 26 of these all the pupils were examined and the sanitation of the buildings and grounds looked after.

Teeth being the major defect as to numbers, also seems to be the underlying cause for most of the other conditions found, and even with this small number taken care of results are already shown in ability and attendance in school.

The following tables give the principal defects among the different nationalities of the 10,648 pupils examined:

Eye defects.

[Total, 1916: 971, or 11 per cent, of total number of pupils. Total, 1917: 865, or 8.12 per cent, of total number of pupils.]

	1917	1916
Japanese.....	349 or 40.35 per cent.....	470 or 48.4 per cent.
Hawaiian.....	75 or 8.67 per cent.....	71 or 7.2 per cent.
Portuguese.....	111 or 12.83 per cent.....	101 or 10.4 per cent.
Chinese.....	134 or 15.49 per cent.....	167 or 16.5 per cent.
Chinese-Hawaiian.....	36 or 4.15 per cent.....	
Portuguese-Hawaiian.....	15 or 1.73 per cent.....	112 or 11.9 per cent.
Part-Hawaiian.....	71 or 8.21 per cent.....	
Porto Rican.....	39 or 4.51 per cent.....	
Filipino.....	2 or 0.23 per cent.....	37 or 3.2 per cent.
Korean.....	6 or 0.7 per cent.....	
Others.....	27 or 3.12 per cent.....	23 or 2.3 per cent.

Nose and throat defects.

[Total, 1916: 1,708, or 21.8 per cent, of total pupils. Total, 1917: 1,753, or 16.46 per cent, of total pupils.]

	1917	1916
Japanese.....	487 or 22.8 per cent.....	510 or 23.7 per cent.
Hawaiian.....	114 or 5.50 per cent.....	130 or 7 per cent.
Portuguese.....	434 or 24.76 per cent.....	409 or 23 per cent.
Chinese.....	269 or 15.35 per cent.....	321 or 18 per cent.
Chinese-Hawaiian.....	73 or 4.16 per cent.....	
Portuguese-Hawaiian.....	34 or 1.94 per cent.....	116 or 11 per cent.
Part-Hawaiian.....	140 or 7.99 per cent.....	
Porto Rican.....	44 or 2.51 per cent.....	
Korean.....	9 or 0.51 per cent.....	75 or 4.2 per cent.
Filipino.....	10 or 0.57 per cent.....	
Others.....	139 or 7.93 per cent.....	147 or 8.2 per cent.

Teeth defects.

[Total 1916: 5,111, or 62.8 per cent, of all pupils. Total 1917: 6,565, or 61.66 per cent, of all pupils.]

	1917	1916
Japanese.....	2,346 or 35.74 per cent.....	1,635 or 29.8 per cent.
Hawaiian.....	551 or 8.39 per cent.....	387 or 9 per cent.
Portuguese.....	1,075 or 16.38 per cent.....	939 or 19 per cent.
Chinese.....	1,164 or 17.73 per cent.....	944 or 17.2 per cent.
Chinese-Hawaiian.....	251 or 3.82 per cent.....	
Portuguese-Hawaiian.....	97 or 1.48 per cent.....	779 or 16.2 per cent.
Part-Hawaiian.....	572 or 8.70 per cent.....	
Porto Rican.....	61 or 0.93 per cent.....	
Filipino.....	19 or 0.29 per cent.....	157 or 3 per cent.
Korean.....	55 or 0.84 per cent.....	
Others.....	374 or 5.70 per cent.....	270 or 5.7 per cent.

The other defects which gave us work to do were especially scabies, so-called "Porto Rican itch." A serious outbreak occurred in the Koolau district schools, but a special nurse soon had it under control and on my last visit there but one case was found. City schools are seldom visited with this disease.

Poor nutrition is still much in evidence, but through the help of private individuals and some philanthropic societies we are finding a way to gradually alleviate this condition. Many of the children found poorly nourished were sent to Pa Ola Day Camp and 15 of them were proven tuberculous. Other disease, such as enlarged glands, heart trouble, rickets, mumps, chickenpox, and measles were found.

PURE FOOD.

It is difficult to obtain a fair index of the amount of work accomplished by this bureau from the general summary of the foods and drugs destroyed or relabeled, on account of adulteration and misbranding. The education side of the work, which is the most important, can not be summarized. The sanitary condition of stores, cleanliness of containers, as well as employees, enter into the work of inspection. Meat markets, fish markets, slaughterhouses, dairies, and bakeries have been covered by this bureau.

The practice of using cereal and coal-tar colors in sausages was found to be common, and the dealers notified as to the requirements.

Inspection trips were made to the islands of Maui and Hawaii for cooperative inspection with the deputy food commissioners. The appointment of the chief sanitary inspectors as deputy food commissioners has enabled this bureau to do more efficient work.

In April, in order that the president of the board might comply with House Resolution No. 106, the pure-food bureau was requested to make an investigation into the causes for existing high prices of foodstuffs. Attention was given to foodstuffs imported from the mainland. Violations were reported to the Federal food authorities at San Francisco so that the matter could be taken up at the source. An immediate and marked improvement was noted.

INSANE ASYLUM.

At the end of the last fiscal period there remained in the institution or on parole 345 males and 97 females, a total of 442. During the year 67 males and 35 females were admitted. The total number under care and treatment was 312 males and 132 females, or 444. The maximum number of patients at any one time was 351, while the minimum was 331. The number of deaths during the year were 37, of which 21 were males and 16 females. Five male patients escaped, three of whom were convalescents.

During the year 16 males and 10 females were discharged as recovered, and 18 males and 8 females as improved. On June 30, 1917, there were 250 males and 97 females in the institution.

The nationalities of those under care and treatment June 30, 1917, also the admissions, are shown in the following table:

Nationality.	Under care and treatment June 30, 1917.			Admissions during period 1916-17.		
	Male.	Female.	Total.	Male.	Female.	Total.
Hawaiian.....	1	27	43	4	9	13
Part-Hawaiian.....	7	10	17	4	4	8
Chinese.....	40	3	43	6	2	8
Portuguese.....	28	30	58	7	8	15
Japanese.....	60	9	69	17	5	22
American.....	6	6	11	2	.....	2
English.....	2	.....	.....	.....	1	1
Scotch.....	1	.....	1	.....	.....	.....
German.....	4	3	7	1	2	3
Russian.....	5	1	6	1	.....	1
Italian.....	1	.....	1	.....	.....	.....
Filipino.....	14	1	15	16	1	17
Korean.....	38	.....	38	6	.....	6
Spanish.....	4	1	5	1	.....	1
Porto Rican.....	16	5	21	2	3	5
East Indian.....	1	.....	1	.....	.....	.....
Central American.....	1	.....	1	.....	.....	.....
South Sea Islander.....	2	.....	2	.....	.....	.....
Gilbert Islander.....	2	1	3	.....	.....	.....
Finnlander.....	1	1	2	.....	.....	.....
Austrian.....	1	.....	1	.....	.....	.....
Total.....	250	97	347	67	35	102
Paroled.....	2	1	3	.....	.....	.....
Escaped.....	5	.....	5	.....	.....	.....
	257	98	355	.....	.....	.....

Of the 37 patients who died, 6 were in the asylum less than 1 month, 5 from 1 to 3 months, 3 from 3 to 9 months, 3 from 9 months to 1 year, 2 from 1 to 2 years, 4 from 2 to 3 years, 6 from 3 to 5 years, 3 from 5 to 10 years, 4 from 10 to 20 years, and 1 from 20 to 30 years. As was the case last year, the largest number of deaths were of patients under 50 years of age. The daily average of patients was 6 more than last period.

During the year the female employees and patients made 376 pairs denim pants, 289 denim jackets, 132 jumpers, 379 pillow slips, 213 sheets, 43 towels, 96 dresses, 69 chemises, 14 pairs of drawers, and 6 petticoats.

Besides giving patients employment which was beneficial to them, it has also helped in the cost of maintenance.

The per diem cost per patient for care, treatment, and maintenance was 46 cents, or \$167.78 per head per year.

The sanitarium buildings are nearly all completed, and it is expected that by September 1, 1917, this institution can be opened. Even before this date it is expected that the building for the therapeutic treatment will be used for the treatment of patients in the asylum.

TUBERCULOSIS.

The work of this bureau is being extended and improved each year. During the year there were 900 new cases reported as against 943 the previous year. This number added to the 1,091 cases at the beginning of the year makes a total of 1,991 cases handled by the bureau in some manner during the year.

There were 415 deaths, and during the year 667 cases were removed from the register for the following reasons: Left the Territory, apparent cures, and some which, after diligent search, the bureau

was unable to locate. The bureau has tried in many ways to get personal supervision over as many cases as possible, and in this has been partially successful, for there are now 635 patients, or 70.2 per cent under personal supervision of the nurses or in sanitariums.

In October, 1916, two nurses were appointed in Honolulu to carry on the work heretofore being done by Palama. There is one nurse on Hawaii, one on Maui, and one on Kauai. It is planned by the bureau to increase this force during the coming year. During the year the nursing staff made over 5,150 visits. The work in connection with the schools has been already mentioned.

In Honolulu restaurant inspection has been carried on in cooperation with the pure-food bureau.

The nurses were able to obtain economic statistics in full from 326 cases, and this survey showed that 30 were independent as to means and 109 were wage earners at the time of their registration, while the balance were indigent.

In the cases reported the bureau was able to find that in 48 cases tuberculosis had existed in the family. An average of 175 of the cases reported were maintained by the bureau in sanitariums.

This year, for the first time since the bureau was organized, the cases amongst Hawaiians and Part-Hawaiians showed a decrease of 41 cases, or 14.5 per cent. The number of cases among the Portuguese showed a slight decrease. The Japanese increased from 299 to 316 cases, an increase of 5.5 per cent, while Filipinos increased from 114 to 124, or 9 per cent. Of the new registered cases, 355 were born in Hawaii, 461 in Asia, 35 in Europe, 16 in America, 16 in various other places, and in 19 cases the birthplace is unknown.

As to length of residence, 180 were residents less than six months, 37 less than a year, 63 less than two years, 166 less than five years, and 355 were born here.

It is felt that headway has been made in the campaign against this disease, and with the increased appropriations for the coming period a much greater progress is hoped for.

LEPROSY.

The four institutions for the treatment of this disease are the leper settlement on the island of Molokai, the leper hospital at Kalihi, and the homes for nonleprous boys and girls of leprous parents on Honolulu.

During the year 32 patients were received and 63 died. Two were examined at the settlement and declared lepers, leaving a total of 587 at the close of the year, 42 less than the previous year. Of these, 358 were male and 229 female. At the Kalihi Hospital there were 44 patients at the beginning of the year; 52 were admitted, 1 reexamined and released, 5 released on parole, 3 died, and 32 transferred to the leper settlement, 3 discharged as not lepers, leaving 52 in the hospital at the end of the year. There were 39 boys at the home for boys, the same number as at the close of the preceding year, and 60 girls as compared with 56. The nationality of the leper population was as follows: 369 Hawaiian, 108 Part-Hawaiian, 47 Portuguese, 24 Chinese, 12 Japanese, 10 Korean, 4 Filipino, 4 German, 3 American, 2 Porto Rican, 2 Spanish, and 1 Belgian. At the beginning of the fiscal year

there were 7 nonleprous children living at the settlement; 18 births occurred during the year, 2 were transferred to homes in Honolulu or relatives, 3 died during the year, leaving 20. At the beginning of the year there were 23 male and 11 female kokuas living at the settlement. During the year 4 male and 6 female kokuas were admitted, making a total of 44, while 2 male and 1 female kokuas were discharged and 1 of each sex died, leaving 24 male and 15 female kokuas. Other persons living at the settlement were 26 male and 18 female, 11 being connected with the United States leprosy investigation station and United States lighthouse, the total population of the settlement being 690.

UNITED STATES LEPROSY INVESTIGATION

The following letter covers this work:

HIS EXCELLENCY LUCIUS E. PINKHAM,

Governor of the Territory of Hawaii, Honolulu, Hawaii.

SIR: The work of the leprosy investigation station during the past fiscal year has been entirely conducted at the Kalihi branch of this station.

The officers on duty at this station were Surg. Donald H. Currie, director, and Acting Asst. Surg. H. T. Hollmann. A number of laboratory investigations have been made during the course of the year just passed, the more important of these being as follows:

1. Cultural attempts with the acid-fast bacillus that is the cause of leprosy from many of the patients under our care at the Kalihi Hospital.

2. Continuing attempts to cultivate the acid-fast bacillus, morphologically identical with the bacillus of leprosy that causes the disease in rats, known as rat leprosy. This organism was first cultivated at this station by the writer.

3. Many attempts have been made to inoculate the lower animals with leprosy. With every year of experience the medical officers stationed here are more and more of the opinion that leprosy is and probably always will remain a strictly human disease. In fact, it is probable that only a small percentage of human beings are susceptible to this disease.

4. During the year Prof. Koga, working in the laboratories of Prof. Kitasato in Japan, manufactured a copper-cyanide compound which he called cupro-cyanol. It was claimed for this product that it would act as a curative agent when given to rabbits and guinea pigs suffering from tuberculosis, and still later he and his colleagues treated cases of leprosy with what appeared to them to be favorable results. A number of experiments were conducted by this station's force with tubercular rabbits and guinea pigs, and from data obtained it appeared to the medical officers of the station engaged in this work that Prof. Koga's preparation was without appreciable curative value for tuberculosis, and it was therefore not considered advisable to administer the substance to lepers.

5. Several biological products of the acid-fast bacillus isolated from the nodules of lepers were prepared and administered to patients at this station.

6. *Complement fixation tests.*—During the year much work has been done in an attempt to find an antigen that will give a specific deflection with the blood of lepers.

7. While not exactly in the line of the regular work of this station, which is constituted chiefly for the scientific investigation of leprosy, the medical officers undertook during the year to ascertain if the claims of Dr. Reed to have isolated a specific bacillus from the blood of epileptics was true. If such had been the case and a vaccine could be prepared from this bacillus, which could be of use to epileptics, the work would be of great practical utility to the Territorial health authorities here. A number of samples of blood was obtained from the epileptics, under treatment by the Territory at the insane asylum, located in Honolulu, and an equal number of samples of blood was secured from lepers under our control at Kalihi. It was found that if ordinary care was employed in obtaining the blood that a subtilislike bacillus (identical as far as the description indicated with the bacillus described by Reed) was found in about 80 per cent of the cases. This percentage was maintained whether the blood was secured from epileptics or lepers. Believing this to be a contaminating

organism, the technique of obtaining the blood was changed, and after this improvement in technique only 20 per cent of the cases showed any growth, 80 per cent remaining entirely sterile. This percentage was maintained both in the case of lepers and epileptics. From the above medical officers of this station were unable to confirm the claims of Dr. Reed except that they could grow a bacillus resembling his microorganisms from the blood of epileptics and lepers. This bacillus was, in their opinion, merely a contamination, but a contamination difficult to always avoid on account of the resistant nature of the microorganisms from the blood of epileptics and lepers. This bacillus was, in their opinion, merely a contamination, but a contamination difficult to always avoid on account of the resistant nature of the microorganism and the fact that it is so widely distributed.

During the year a number of bulletins were written, but owing to the war and the scarcity of paper they have as yet not been published.

Respectfully,

HARRY T. HOLLMANN,

Acting Assistant Surgeon in Temporary Charge.

VITAL STATISTICS.

The total number of births during the year was 9,365, an increase of 489 over the number for the previous year, showing a birth rate of 37.36 per thousand, estimating the population at 250,627. The total number of deaths from all causes was 3,498, a decrease of 442 over the previous year, showing a death rate of 13.96 per thousand on the same estimated population. The marriages totaled 2,762, an increase of 46. The estimated population and births of the registrar of vital statistics and those furnished through the courtesy of the Japanese consulate for the period are: Births (Japanese), Territorial registrar (registered), 4,260; Japanese consulate, 4,918.

UNITED STATES PUBLIC HEALTH SERVICE.

The activities of the United States Public Health Service, under direction of the chief quarantine officer, in the Hawaiian Islands remained the same as for previous years and will be considered under their appropriate headings.

General.—Service officers are stationed at the seven ports of entry in the Hawaiian Islands, namely, Honolulu, Hilo, Kahului, Lahaina, Mahukona, Makeweli, and Koloa.

Certain of the quarantinable diseases prevailed to a considerable extent at the foreign ports of departure of vessels bound for the Hawaiian Islands during the year.

Cholera was present throughout the year at the Dutch East Indian ports, to a considerable extent in Manila, and occurred in epidemic proportions last fall in Japan.

Plague was present in Hongkong, the Dutch East Indies, and the west coast of South America; smallpox was reported from the Chinese ports, Dutch East Indies, Russian Pacific ports, and toward the close of the year there was a sharp outbreak of the disease in Japanese ports.

Typhus was reported at Vladivostok and the Dutch East Indian ports.

During the year three vessels arrived with cases of leprosy on board, while eight vessels arrived with smallpox on board or histories of having had the disease on board during the voyage. Vessels inspected: Six hundred and fifty-two vessels were boarded and inspected upon arrival at the following ports of entry, namely, Hono-

lulu, 566; Hilo, 50; Kahului, 16; Mahukona, 8; Makaweli, 12; Lahaina, 4; Koloa, 1.

Port sanitary statements.—Five hundred and forty-five statements were issued at Honolulu, 114 at Hilo, 77 at Kahului, 39 at Makaweli, 1 at Koloa, 12 at Mahukona, and 5 at Lahaina to vessels bound for United States ports.

Cholera quarantine.—The presence of cholera in Japan was first reported by the Associated Press on August 5, 1916, an outbreak of the disease having occurred on the Osaka Shosen Kaisha steamer *Hawaii Maru* at Yokohama on July 30, 1916, just prior to departure of the vessel for Puget Sound.

In view of these facts and in accordance with the requirements as contained in department circular letter of July 19, 1911, No. 47, a quarantine of all vessels arriving from Japanese ports and their personnel was instituted. Saloon officers and cabin passengers were allowed ashore, the through steerage passengers and crew were detained on board, while the steerage passengers for the islands and stowaways were removed to the station and there examined for cholera vibrios in the stools.

This quarantine was continued until December 16, 1916, when, in view of the practical disappearance of the disease at Japanese ports, all restrictions were removed.

Quarantinable diseases on arriving vessels—Smallpox.—The steamship *Shinyo Maru* arrived from Yokohama on November 2, 1916, with a steerage passenger seriously ill of confluent smallpox of about nine days' duration. The case and nurse were removed to the station, and as the ship's surgeon had only discovered the case five days before arrival, it was deemed necessary to remove all the steerage and second-class passengers to quarantine and to disinfect the steerage and hospital compartments on board.

On January 8, 1917, the steamship *Tenyo Maru* arrived from Yokohama with a case of confluent smallpox in the person of a cabin passenger. In view of the excellent sanitary measures taken by the surgeon of this vessel it was only necessary to remove the patient and two contacts to the station, and after disinfecting the hospital to grant the vessel pratique.

The case of the last-named patient was of interest, in that she was 66 years of age, she had never been vaccinated since childhood, and she had been ashore but at very few of the ports touched at on the round trip.

The steamship *Ecuador* arrived January 23, 1917, with a cabin passenger, Chinese infant of 4 months, ill with confluent smallpox. Here again it was only necessary to remove the patient and contacts and to disinfect the hospital before granting the vessel pratique.

The case from the *Shinyo Maru* ended fatally, while the cases from the *Tenyo Maru* and *Ecuador* both recovered.

Five other vessels arrived during the year with histories of having had cases of smallpox removed at ports touched at en route, and as the necessary precautions had all been taken it was not necessary to carry out any measures on arrival.

Leprosy.—Three vessels arrived with leprosy on board and two with histories of having landed cases of the disease at ports touched at en route.

Those with leprosy on board consisted of the transport *Dix*, from Seattle, with two cases being returned to Manila; the steamship *Kiyo Maru*, with five cases from Callao en route to Hongkong; and the steamship *Great Northern*, from San Francisco, with a case of the disease in the person of a cabin passenger. This last named was turned over to the board of health, he being a resident of the Territory, and in all cases the requirements of the regulations were complied with.

Contagious diseases on arriving vessels.—Forty-seven vessels arrived during the year with contagious diseases on board, of which there were 91 cases of measles, 15 mumps, 3 diphtheria, 4 epidemic cerebrospinal meningitis, 9 scarlet fever, 1 typhoid, 22 varicella, 1 tuberculosis, and 1 of pertussis.

Of this number there occurred amongst the personnel of transports, principally recruits, 52 cases of measles, 7 mumps, 1 diphtheria, 3 epidemic cerebrospinal meningitis, 9 scarlet fever, and 1 of pertussis.

These cases on the transports were all removed and isolated at the department hospital, Fort Shafter, while those occurring on other vessels were all reported to the board of health and passengers detained on board until the cases had been seen and action taken by a representative of the board of health.

Vessels fumigated for rat quarantine.—The work of keeping the interisland vessels as free as possible of animals and insects that might be capable of transmitting disease has been continued throughout the year. All vessels engaged in the interisland trade have been regularly fumigated, during the early part of the year those touching ports on the island of Hawaii, where plague prevails, being fumigated every 30 days, while those touching at other ports were treated every 3 months. Toward the latter end of the year, in view of the rat-free condition of the vessels and the absence of any reported plague on Hawaii, the period between fumigations of vessels touching this island was extended to 60 days, but on account of the reappearance of plague on Hawaii at the close of the year the period was again reduced to 30 days.

Fumigation of vessels for mosquitoes.—The fumigation for the destruction of mosquitoes of vessels from ports on the west coast of Mexico, Central and South America was continued during the year, a total of 35 vessels being so treated, the majority being tramp vessels, with cargoes of niter either for the islands or destined for Vladivostok.

Aid rendered other government services—Board of health.—The remains of four persons dying from leprosy at the Kalihi receiving station were cremated at the quarantine station on request of the board of health.

One suspected cholera carrier, 1 diphtheria carrier, 9 cases of varicella, 1 scarlet fever case and contact, and 1 case of measles were received and isolated at the station on request of the board of health.

A large number of swabs were prepared and sterilized and a considerable amount of media were made for the board of health during the year.

Plague on Hawaii.—During the year plague was present only on the island of Hawaii, where it has existed for the past 17 years, and remained localized to the Hamakua district.

Three cases of human plague occurred, the first case being that of a Japanese stableman at the Paauiho stables, on March 7, 1917; the second being that of a Portuguese stableman at the Paauiho Mill camp, on June 20, 1917; and the third a Japanese rat catcher at the Paauiho Mill camp, on June 23, 1917. All cases terminated fatally.

Four plague-infected rats were found, one being obtained on November 7, 8, and 9, respectively, at the Amana stables of the Hamakua Mill Co. and one from the Paauiho Mill camp stables, on June 8, 1917.

The last previous case of human plague occurred at Honokaa village on December 16, 1915, while the last previous plague-infected rat was found at Paauiho on January 16, 1916.

The plague work on Hawaii, under the able direction of Chief Sanitary Inspector D. S. Bowman, of the Territorial board of health, has been devoted largely to building the rat out of stables, warehouses, and habitations, and has been combined with an effective campaign of poisoning and trapping so as to render habitations, stables, etc., as rat free as possible, but the task is one of immense proportions, for the rodents can obtain abundant nourishment in the cane fields; and, owing to the shelter to be found in the gulches, stone walls, and fissures in the lava rock, it is well-nigh impossible to attempt anything but to keep the habitations and buildings as rat free as possible.

Rat campaign.—17,530 rats and mongoose were taken in the district of Honolulu during the year; 17,155 were trapped, 259 were killed in the fumigation of vessels, 4 were found dead, while 112 mongoose were taken.

This was a decrease of 797 as compared with the number obtained during the previous year.

Immigration.—A total of 4,552 immigrants were inspected at this port during the year ending June 30, 1917, and 329 were certified for diseases or disabilities in accordance with the immigration law.

Personnel.—The following officers were on duty in the Hawaiian Islands at the close of the year:

Honolulu.—F. E. Trotter, surgeon, chief quarantine officer; L. E. Hooper, assistant surgeon; A. N. Sinclair, acting assistant surgeon; W. F. James, acting assistant surgeon; G. I. Van Ness, pharmacist; Frank J. Loncke, pilot and engineer; E. F. Smith, medical inspectress.

Hilo, Hawaii.—L. L. Sexton, acting assistant surgeon.

Mahukona, Hawaii.—B. D. Bond, acting assistant surgeon.

Kahului, Maui.—William Osmer, acting assistant surgeon.

Lahaina, Maui.—Franklin Burt, acting assistant surgeon.

Koloa, Kauai.—A. H. Waterhouse, acting assistant surgeon.

UNITED STATES NAVAL AND MILITARY AFFAIRS.

Since the declaration of war by the United States, there has been a number of changes in the Hawaiian Department, and unquestionably the various departments and bureaus in Washington are keeping closely in touch with military and naval affairs in the Territory.

The eight war-bound German merchant vessels and gunboat that were interned in the port of Honolulu, also the merchantmen that are interned in the port of Hilo, have been commandeered by the United States Naval Department since the declaration of war. A majority have already been placed in commission under the Stars and Stripes.

The Hawaiian Department and the National Guard are closely in touch each with the other at all times, and it is confidently expected that with a permanent department commander much that will prove of benefit to the Territory will accrue in National Guard circles.

NATIONAL GUARD OF HAWAII.

The following is the report of the adjutant general of the Territory of Hawaii, which is self-explanatory:

His Excellency the GOVERNOR OF HAWAII.

SIR: I have the honor to submit the annual report of the adjutant general to the governor, the following being a synopsis of the operations of the militia department for the fiscal year ending June 30, 1917:

General.—The reorganization of the National Guard of Hawaii on general lines, approved by the War Department, was completed during the fiscal year 1915-16, so that the Territorial military establishment for the fiscal year now reported upon consisted of the following units organized as a reinforced brigade:

First Separate Company Hawaiian Engineers; Company B, Hawaiian Signal Corps; First Company Hawaiian Coast Artillery; Second Company Hawaiian Coast Artillery; First Separate Troop Hawaiian Cavalry; First Regiment Hawaiian Infantry; Second Regiment Hawaiian Infantry; Third Regiment Hawaiian Infantry; Fourth Regiment Hawaiian Infantry; First Separate Company Hawaiian Infantry.

The authorized sanitary detachment for each Infantry regiment, and quartermaster and ordnance departments organized as prescribed by the Militia Tables of Organization, were maintained in addition to the above units.

During the year much equipment of all classes was received by the National Guard of Hawaii and distributed among the various organizations. Many companies of the National Guard had been without complete equipment for many months after their formation.

In May, 1917, the governor, acting in cooperation with the commanding general, Hawaiian Department, decided to reduce the number of Infantry organizations maintained by the Territory to two full regiments. It was decided to consolidate the Second, Third, and Fourth Regiments of Infantry into one regiment, to be designated the Second Regiment, one battalion of which was to be located on each of the islands of Hawaii, Maui, and Kauai. This consolidation was urged in view of the fact that if war conditions necessitated the raising of the National Guard of Hawaii to maximum strength, such an increase of the guard as consolidated could be made without working any hardship on industry and food production. This reorganization of the National Guard of Hawaii met with the approval of the War Department, and orders prescribing the new organization were issued, to take effect at the beginning of the fiscal year 1917-18.

Strength.—The actual strength of the National Guard of Hawaii June 30, 1916, and June 30, 1917, is shown in the following table:

	1916		1917	
	Commissioned officers.	Enlisted men.	Commissioned officers.	Enlisted men.
Adjutant general's department.....			2	
Inspector general's department.....	1			
Ordnance department.....	1	1	1	1
Judge advocate general's department.....	1			
Quartermaster Corps.....	5	1	5	7
Medical department.....	13	55	8	62
Engineers.....	5	70	3	25
Signal Corps.....	3	75	3	50
Cavalry.....	3	75	2	68
Coast Artillery.....	1	200	5	39
Infantry.....	196	4,308	204	2,512
Chaplains.....	2		2	
Total.....	223	4,811	226	2,085

Armories.—The Territorial legislature of 1917 dealt liberally with the National Guard in the matter of armories, a total of \$100,000 being appropriated to cover the cost of 27 armories, distributed throughout the Territory according to local needs.

Although the consolidation of Infantry organizations reduced the number of companies throughout the islands, authority exists for the maintenance of detached platoons, and the legislature's provisions for guard armories will be fully utilized.

The legislature of 1917 also made provision for much-needed expansion of the Honolulu armory, which, owing to increases in the regimental organization, was taxed far beyond its intended capacity.

Provision was also made for the erection of armories on the Fort De Russy Military Reservation to accommodate two companies of National Guard Coast Artillery.

Federal appropriations.—For the fiscal year 1916-17 the National Guard of Hawaii received a far larger Federal appropriation than ever before. A total of \$331,509.66 was allotted to the Territory from National Guard appropriations, but owing to the fact that equipment for new organizations had to be paid for from this allotment instead of being charged against unallotted funds, as had been the custom heretofore, this sum was by no means in excess of the guard's actual needs.

National Guard status.—Under the national-defense act of June 3, 1916, the entire Organized Militia of Hawaii qualified as National Guard. However, conflicting instructions as to the necessity for a new oath for officers and enlistment contract for enlisted men, together with the time required to adjust this matter by correspondence between Honolulu and Washington, resulted in a delay of several months. The transition from Organized Militia to National Guard status was not completed in the case of some organizations until the latter part of 1916. Due to this condition, certain companies did not draw Federal pay for the first half of the fiscal year. The change to National Guard status was complete when finally accomplished, leaving no organizations in the National Guard of Hawaii other than those recognized as National Guard under the provision of the defense act.

Field training.—During the fiscal year 1916-17 the First Hawaiian Infantry and First Separate Company Hawaiian Engineers participated with troops of the Regular Army in a seven-day period of field training. This joint encampment was held at Red Hill, Oahu, and was in every way a success.

Owing to the fact that field equipment was not available, organizations of the National Guard of Hawaii, other than those above mentioned, were excused by the Secretary of War from the annual period of field training prescribed by law.

National mobilization.—Immediately after the commencement of the war with Germany the National Guard of Hawaii, acting on orders from the Militia Bureau of the War Department, prepared for a general mobilization. Following the policy that was ordered in continental United States, married men and others with dependent relatives were discharged. Had the call or draft into Federal service reached the National Guard of Hawaii as was generally expected, little difficulty would have been encountered in enlisting desirable candidates to take the place of the married men so discharged. However, the ultimate decision of the War Department not to mobilize, call, or draft the Hawaii Guard, announced after several months of uncertainty, made recruiting extremely difficult.

Conclusion.—In conclusion, I beg to state as my opinion, based on careful observation of existing local conditions, that the National Guard of Hawaii, as reorganized, can be maintained as an efficient whole. A general mobilization and induction into the Federal service would greatly facilitate the training of existing units and would be to the best interests of all concerned. The Territorial military establishment is anxiously awaiting the opportunity to prove its worth in time of national need, and it is urged that every effort be made to secure early mobilization for the entire guard.

Respectfully submitted.

(Signed) SAMUEL I. JOHNSON,
Brigadier General, U. S. A., the Adjutant General.

UNITED STATES INTERNAL-REVENUE SERVICE.

During the half month between the organization of Territorial government and the beginning of the first complete fiscal year the collections amounted to \$7,454.80.

The following tables show the statistics in regard to this service:

Special tax stamps and certificates of registry issued.

Rectifiers of less than 500 barrels per annum	5	Pawnbrokers	3
Wholesale liquor dealers	56	Shipt brokers	7
Retail liquor dealers	287	Proprietor of theaters, at \$12.50	15
Wholesale dealers in malt liquors	12	Proprietor of theaters, at \$25	22
Retail dealers in malt liquors	5	Proprietor of theaters, at \$37.50	8
Brewers of 500 barrels or more per annum	4	Proprietor of theaters, at \$50	35
Wholesale dealers in uncolored oleo-margarine	1	Proprietor of theaters, at \$75	19
Manufacturers of playing cards	2	Proprietor of theaters, at \$100	9
Dealers in leaf tobacco	2	Proprietor of public exhibitions	45
Wholesale dealers in denatured alcohol	1	Proprietor of billiard and pool rooms	260
Manufacturers of cigars	1	Manufacturers of cigars, at \$3	2
Peddlers of tobacco	15	Dealers in tobacco	1,802
Licensed organizations to collect foreign income	51	Importers and manufacturers of narcotics	4
Brokers	51	Druggists and dispensaries	65
Commercial brokers	52	Physicians, dentists, and veterinarians	190
Customhouse brokers	20	Bankers	28
		Total	2,490

Internal-revenue receipts and disbursements, fiscal years 1916 and 1917, and 17 complete fiscal years since organization of Territorial government.

Receipts.	1916	1917	1901-1917
Collections on lists (fines and penalties)	\$0,962.36	\$18,964.09	\$100,119.33
Fermented liquor	60,485.00	66,056.75	307,056.39
Distilled spirits (tax paid)	38,962.33	49,946.06	439,212.67
Cigars and cigarettes	72.64	94.58	12,080.78
Tobacco and snuff	2,456.37	2,368.00	45,396.12
Special taxes, regular	14,275.98	13,184.84	280,137.42
Special taxes (act of Oct. 22, 1914)	12,096.65	8,372.41	35,385.98
Special taxes on narcotics	247.11	246.01	717.70
Playing cards	537.92	754.02	13,738.02
Documentary stamps (act of June 13, 1896)			68,042.60
Documentary stamps (act of Oct. 22, 1914)	47,967.32	15,613.58	92,894.86
Proprietary stamps (act of Oct. 22, 1914)	1,085.10	128.75	4,938.80
Proprietary stamps			11,267.34
Corporation income tax	241,938.37	909,818.58	2,140,977.48
Individual income tax	112,144.95	363,880.70	556,059.31
Wine stamps (act of Oct. 22, 1914)	46,535.18	31,281.84	114,485.08
Opium order forms	23.40	20.30	109.80
Bankers' special taxes	6,447.27	3,236.34	9,772.61
Capital stock tax		50,721.13	50,721.13
Total	694,137.85	1,534,675.38	4,373,132.43
Disbursements (salaries, expenses, and refunds)	17,496.65	18,963.37	234,125.97
Net	676,638.20	1,515,812.01	4,149,006.46

UNITED STATES CLIMATOLOGICAL SERVICE.

The routine station work of taking observations and rendering reports was carried on without interruption. A number of new projects were started during the year, and plans are now under consideration for a further extension of the meteorological service in Hawaii.

On September 11, 1916, a cooperative weather service was inaugurated by the Weather Bureau and the United States Navy whereby ships at sea are furnished with Honolulu weather observations four

times each day. The Weather Bureau takes observations at 8 a. m., noon, 4 p. m., and 8 p. m., and forwards them to the United States naval station at Pearl Harbor, Oahu. The wireless operator at that place sends them broadcast over the seas by the Government's powerful radio set. Ships carrying wireless outfits are thus informed of the kind of weather to be expected in and around Honolulu every four hours during the day.

At the close of the year 1916 an Annual Meteorological Summary, with comparative data for Honolulu, was published. One thousand copies were printed for distribution to parties interested in Honolulu weather. These contain not only meteorological data for the year in detail but also monthly and annual temperatures and precipitation for Honolulu from the beginning of official observations up to the current year, and extremes of temperature, wind, and precipitation during the period of observations. This is the first publication of its kind pertaining to the Honolulu station.

An article entitled "Honolulu Weather," accompanied by illustrations, was prepared and published in the Christmas number of the *Paradise of the Pacific Magazine* and copies of meteorological data were furnished several applicants for publication in local pamphlets and periodicals.

The average daily temperature, average daily rainfall, and average daily air pressure for Honolulu were computed from observations made at the bureau's present location, and precipitation normals for over 150 substations in the section were completed.

An accumulation of several hundred copies of foreign meteorological reports, many of them in foreign languages, were sent to the librarian of the College of Hawaii, where they will be catalogued and placed on file for the use of the public.

A special meteorological station was established at Midway Island, Pacific Ocean, on May 1, 1917. Daily observations of air pressure, temperature, precipitation, wind direction and velocity, and state of weather are made each evening at 8 o'clock, Honolulu time. Reports are cabled to the local office and added to the regular daily weather reports for Honolulu and sent to the mainland each evening. Mr. Henry P. Butler, an employee of the Commercial Pacific Cable Co., was employed as special meteorological observer at Midway.

Through the cooperation of the manager of the Moana Hotel twice-daily observations of the temperature of the ocean water at Waikiki Beach were begun on June 1, 1917. A special water thermometer was furnished by the Weather Bureau, and an employee of the hotel instructed to take the observations. The thermometer readings will be posted on a bulletin board at the beach, and they will also be summarized and published in the Hawaii section reports.

Several vessels were visited during the year in connection with marine observations, and a large number of barometers and thermometers were tested and regulated for mariners and others.

Eighteen cooperative stations were established during the year and three were discontinued. At the greater number of the stations recently established, rainfall records only are made, and in most instances private gauges are in use. The total number of cooperative stations in operation on June 30, 1917, was 150, distributed as follows: Hawaii, 47; Kauai, 27; Lanai, 1; Maui, 33; Molokai, 2;

Oahu, 40. All of the foregoing report rainfall, and the numbers supplied with Government thermometers for reporting temperatures are: Hawaii, 17; Kauai, 6; Lanai, 1; Maui, 10; Molokai, 2; Oahu, 14.

In addition to rendering monthly reports, 39 of the cooperative observers act as weather and crop correspondents and each week forward a postal-card report containing data and information for use in the Weekly Weather and Crop Bulletins. Twenty of these correspondents are located on Hawaii, 6 on Kauai, 4 on Maui, and 9 on Oahu. The observers at the United States experiment stations at Glenwood, Hawaii, and Haiku, Maui, were enlisted in this service during the year, and their reports are comprehensive and valuable.

The special wind-recording station at the United States experiment station near Haiku, Maui, was continued throughout the year, but the superintendent has not yet furnished a report on the project. Another wind-recording station, similar to the one at Haiku, was established during the year at the Hawi Mill & Plantation Co., Hawi, Hawaii. These stations, with the one at Honolulu, furnish data on wind direction and velocity for three of the largest islands in the group, and will afford valuable material for the study of the effects of strong winds on crop development.

Maximum and minimum thermometers were loaned to the division of hydrography for exposure at a high elevation in the Territorial park on the island of Kauai. Data are desired concerning the highest and lowest temperatures in the park to determine its fitness as a public camping ground.

Reports were obtained each month from the new cooperative meteorological station at the tuberculosis sanitarium, Kula, Maui, elevation 3,004 feet. Full cooperative stations were established at Kipahulu, Maui, and at Kahana, on windward Oahu, and data for those places are now published in the Hawaii section reports.

All cooperative stations on the islands of Maui and Molokai were inspected during the year, and six on the island of Oahu were visited.

Weekly, monthly, and annual climatological reports were published regularly, and in the same form as at the close of last fiscal year.

Very respectfully,

LUCIUS E. PINKHAM,
Governor of Hawaii.

The SECRETARY OF THE INTERIOR.

APPENDIX.

TERRITORIAL REGISTER AND DIRECTORY.

Territorial Officials.

EXECUTIVE.

L. E. Pinkham, governor.	H. W. Kinney, superintendent of public instruction.
C. P. Iaukea, secretary.	M. G. K. Hopkins, auditor.
I. M. Stainback, attorney general.	W. E. Wall, surveyor.
C. J. McCarthy, treasurer.	W. P. Jarrett, high sheriff.
B. G. Rivenburgh, commissioner of public lands.	Will Wayne, private secretary to governor.
C. R. Forbes, superintendent of public works.	

DELEGATE TO CONGRESS.

J. K. Kalaniana'ole.

JUDICIAL.

A. G. M. Robertson, chief justice supreme court.	W. S. Edings, judge second circuit, Walluku, Maui.
J. L. Coke, associate justice, supreme court.	J. W. Thompson, judge third circuit, Kailua, Hawaii.
R. P. Quarles, associate justice, supreme court.	O. Q. Quinn, judge fourth circuit, Hilo, Hawaii.
C. W. Ashford, first judge, first circuit.	L. A. Dickey, judge fifth circuit, Lihua, Kauai.
S. B. Kemp, second judge, first circuit.	
W. H. Heen, third judge, first circuit.	

LEGISLATIVE.

Senate.—C. F. Chillingworth (president), A. L. Castle, E. W. Quinn, S. P. Correa, R. W. Shingie, M. C. Pacheco, R. H. Makekau, S. L. Desha, Robert Hind, G. P. Kamauoha, H. A. Baldwin, W. T. Robinson, G. P. Cooke, J. H. Coney, M. A. Mikaele.

House.—H. L. Holstein (speaker), C. H. Cooke, L. Andrews, J. K. Jarrett, C. N. Marquez, T. H. Petrie, G. P. Wilder, R. Ahuna, E. K. Fernandez, Joseph Kalana, D. M. Kupihea, W. E. Miles, W. F. Mossman, H. L. Kawewehi, E. da Silva, N. K. Lyman, B. H. Kelekollo, J. Leal, E. K. Kaaua, G. K. Kawaha, A. F. Tavares, E. Waiaholo, J. Brown, jr., L. L. Joseph, M. G. Paschoal, J. J. Walsh, J. K. Lota, J. K. Kula, C. H. Wilcox, J. de C. Jerves.

MISCELLANEOUS.

BOARD OF AGRICULTURE AND FORESTRY.

Arthur H. Rice (president), J. M. Dowsett, W. M. Giffard, A. L. C. Atkinson, H. M. von Holt.

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Hawaii.—E. N. Holmes, D. K. Ewaliko, M. de F. Spinola.

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First and second judicial circuits.—M. D. Monsarrat.

Third judicial circuit.—J. A. Matthewman.

Fourth judicial circuit.—W. H. Smith.

Fifth judicial circuit.—L. A. Dickey.

CIVIL SERVICE COMMISSION FOR THE CLASSIFIED SERVICE OF THE BOARD OF HEALTH.

F. F. Hedemann, W. C. McGonagle, W. Wolters.

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W. R. Farrington (chairman), F. L. Waldron, Mrs. J. R. Ashford, A. Gartley, C. R. Hemenway

COMMISSIONERS OF DEEDS.

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Pennsylvania.—Louis Karstaedt.

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C. B. High, M. E. Grossman, O. E. Wall.

INSPECTORS OF ELECTION.

First representative district.—J. D. Collins (chairman), J. K. Keohi, G. Spencer.

Second representative district.—G. P. Green (chairman), K. Alika, G. L. Bertleman, R. Kahalloumi, J. Keawe Hawaii.

Third representative district.—M. Waiwalole (chairman).

Fourth representative district.—C. K. Wong (chairman), C. L. Roberts.

Fifth representative district.—J. Kanoho, B. J. Guerrero, Daniel Kama, A. Kahaawinui, J. P. Kekoa, J. K. Kellikoa, D. P. McGregor, G. K. Poepeo.

Sixth representative district.—J. K. Farley, P. H. Rice.

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Oahu.—Ewa and Waianae, C. A. Brown, E. O. White; Waialua, W. B. Thomas, R. Kinney; Honolulu, J. Markham, N. E. Gedge.

Hawaii.—South Kona, L. P. Lincoln, E. K. Kaana, A. Halle; Kau, J. T. Nakai, G. J. Becker, George Campbell; North Kona, A. S. Wall, T. Silva, J. Kaelemakule; Puna, G. D. Supe, H. J. Lyman.

Mau.—Makawao, E. H. Brown, G. S. Goodness, H. Howell; Molokai, H. R. Hitchcock, J. G. Munro, S. Fuller.

FOOD COMMISSION.

J. D. Dole (chairman), F. E. Blake, C. G. Bockus, R. Ivers, A. W. Neely, J. Waterhouse.

COMMISSION ON GAME AND FISHERIES.

Oahu.—H. Goodling Field, A. H. Rice.

Hawaii.—G. J. Richardson.

Kauai.—C. A. Rice.

Mau.—D. T. Fleming.

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Honolulu.—A. J. Campbell (chairman), F. O. Boyer, A. J. Wirtz, F. E. Steere, R. B. Booth.

Hawaii.—H. B. Elliot (chairman), D. Ewaliko, B. K. Baird, H. A. Truslow, James Webster.

Kauai.—L. D. Timmons (chairman), E. E. Mahlum, H. H. Brodie, J. H. Moragne, J. M. Lydgate.

*Mau*i.—W. J. Cooper (secretary), G. Freeland, W. A. McKay, G. Weight, W. H. Field.

BOARD OF INDUSTRIAL SCHOOLS.

C. B. Cooper (chairman), Rev. V. Franckx, Mrs. F. W. Macfarlane, Mrs. B. Klebahn, C. G. Heiser, jr., Judge W. H. Heen (ex officio), Miss B. B. Taylor.

COMMISSIONERS OF INSANITY.

Dr. G. Herbert, Dr. L. J. Warren, Dr. C. B. Cooper.

BOARD OF COMMISSIONERS FOR LAHAINALUNA SCHOOL.

D. C. Lindsay (chairman ex officio), H. McCubbin, W. D. Baldwin, C. C. Crowell.

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C. H. Atherton (president), A. Gartley, Mrs. E. C. McCandless, W. D. Westervelt, F. E. Blake, J. R. Galt, Rev. H. B. Restarick.

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*Mau*i.—D. C. Lindsay, C. D. Lufkin, T. B. Lyons, D. H. Case, W. F. Knae.

Kauai.—J. R. Myers, B. D. Baldwin, W. D. McBryde, G. N. Wilcox, W. H. Rice, sr.

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*Mau*i.—C. R. Forbes (chairman ex officio), Patrick Cockett, R. A. Wadsworth, W. F. Pogue.

Kauai.—C. R. Forbes (chairman ex officio), H. D. Wishard, A. Menefoglio, F. Gay, W. D. McBryde.

DISTRICT MAGISTRATES.

Oahu.—Honolulu, Harry Irwin, A. D. Larnach; Ewa, S. Hookano; Koolauloa, L. B. Nainoa; Wai'alua, E. Hore, W. S. Wond; Koolaupoko, E. P. Aikue, H. C. Adams; Wai'anae, B. P. Zablan.

Hawaii.—South Kona, R. Makahalupa; South Hilo, D. E. Metzger, W. H. Smith; North Kohala, R. H. Atkins; North Kona, D. K. Baker; Puna, J. S. Ferry, S. H. Haaheo; Kau, W. H. Hayselden; South Kohala, H. C. Davis; North Hilo, T. E. M. Osorio; Hamakua, Henry Hall, M. S. Botelho.

Kauai.—Lihue, J. L. Hjorth, J. H. Kaiwi; Wai'imea, C. B. Hofgnard, J. K. Kapuniai; Kawai'hau, R. Puuki; Hanalei, W. Huddy; Koloa, D. K. Kapahee, Rev. S. K. Kaullili.

*Mau*i.—Makawao, J. G. Anjo, G. K. Kunukau; Hana, H. E. Palakiko, G. P. Kaulimakale; Lahaina, P. Pall, C. B. Cockett; Walluku, W. A. McKay, H. C. Mossman, Molokai, C. C. Conradt; Kalawao, J. E. Conradt, J. D. McVeigh.

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NAVAL MILITIA BOARD.

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A. N. Sanford, W. I. Seymour, W. H. Hill.

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Dr. F. F. Hedemann, A. J. Gignoux, H. H. Morehead.

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Fourth judicial circuit.—George Cool, William Weight, C. E. Wright.

Fifth judicial circuit.—J. M. Lydgate, A. S. Wilcox, H. Wolters.

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First judicial circuit.—J. Milton, F. F. Fernandez, S. S. Paxson.

Second judicial circuit.—W. H. Field, O. D. Lufkin, George Weight.

Third judicial circuit.—W. P. McDougall, G. P. Tulloch, P. W. P. Bluett.

Fourth judicial circuit.—J. D. Easton, W. J. Stone, R. T. Guard.

Fifth judicial circuit.—E. H. Broadbent, C. S. Dole, J. H. Moragne.

BOARD OF VETERINARY EXAMINERS.

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Federal Officials.

POST OFFICE DEPARTMENT.

Inspector, T. J. Flavin; postmaster, D. H. MacAdam; assistant postmaster, W. C. Petersen.

TREASURY DEPARTMENT.

Customs division.—Collector, M. A. Franklin; special deputy collector, R. Sharp.

Internal-Revenue Service.—Collector, J. F. Haley; chief deputy collector, R. S. Johnstone.

Public Health Service.—Surgeon, F. E. Trotter; leprosy investigation surgeon, D. H. Currie.

DEPARTMENT OF AGRICULTURE.

Hawaii Experiment Station.—Agronomist in charge, J. M. Westgate.

Weather Bureau.—Meteorologist in charge, A. M. Hamrick.

DEPARTMENT OF LABOR.

Immigration Service.—Inspector in charge, R. L. Halsey.

DEPARTMENT OF COMMERCE.

Lighthouse Service.—Inspector nineteenth lighthouse district, A. E. Arledge.

GEOLOGICAL SURVEY.

G. K. Larrison, district engineer in charge Hawaii district.

DEPARTMENT OF JUSTICE.

United States district court.—J. B. Poindexter, H. W. Vaughan, judges; S. C. Huber, district attorney; J. J. Smiddy, marshal; A. E. Harris, clerk.

NATIONAL GUARD OF HAWAII.

Gov. Lucius E. Pinkham, commander in chief.

Brig. Gen. Samuel I. Johnson, commanding general and the adjutant general.

FIRST HAWAIIAN BRIGADE.

Brig. Gen. Samuel I. Johnson.

Maj. Will Wayne, adjutant general, brigade adjutant.

Staff corps and departments.—Maj. Lawrence W. Redington, adjutant general; Maj. Ingram M. Stainback, judge advocate general; chief quartermaster, Maj. John W. Short, quartermaster corps; chief ordnance officer, Maj. Joaquim M. Camara, ordnance department; quartermaster corps, Maj. James D. Dougherty; Capt. Henry van Gleson, Charles R. Bostwick; chief surgeon, Maj. Charles B. Cooper; First Lieut. Wah Lam, dental corps.

Medical corps.—Majs. Harvey L. Ross, Frank A. St. Sure, Lawrence L. Patterson; First Lieuts. William T. Dunn, A. H. Waterhouse, Albert T. Roll, Also-berry K. Hanchett.

Signal corps.—Capt. Roy L. Noggle; First Lieuts. Jay C. Ramey, Frederick C. Moore.

Cavalry.—First Lieut. Olaf L. Sorenson; Second Lieut. Samuel K. Parker.

Corps of engineers.—Capt. John W. Caldwell; First Lieut. Wilbur C. Woodward; Second Lieut. M. H. Webb.

FIRST REGIMENT HAWAIIAN INFANTRY, NATIONAL GUARD.

Col. William R. Riley.

Lieut. Col. Gustave Rose.

Majors.—Merle M. Johnson, Arthur W. Neely, Charles M. Ooster.*Captains.*—Henry P. O'Sullivan, Walter V. Kolb, Valentin H. Franckx, Samuel H. Ware, Frank J. Dougherty, Ohing K. Amona, John McCandless, Louis K. Kane, Luther A. K. Evans, Sherwood M. Lowrey, Lewis B. Reeves, Lawrence M. Judd, H. Stuart Johnson, John Hilo, William G. Allen, Charles N. Arnold, Lewis J. Renton, William A. Kinney, Harold Dyson.*First lieutenants.*—Lono McCallum, Robert H. Lowrie, Alexander May, Philip Sing, Harold Godfrey, Fred K. Ellis, Edward D. Chung, Frank E. Midkiff, Lewis E. Haehnlen, Herbert E. Wescott, Thomas C. P. Boylan, Manuel Moses, George W. Baker, Robert D. King, Robert E. White, Walter S. Witte, George E. Newman, Lewis W. Howard, Henry B. Dyson.*Second lieutenants.*—George K. Moore, Thomas J. K. Evans, James Ho Yap, David L. Mackaye, Frank K. Kalua, Richard N. Benny, Carl A. Vickery, Harry Kauhane, Richard D. Lane, William J. Gimbel, Walter S. Rycroft, William L. Warren, David L. Desha, Albert B. Clark, William S. R. De La Nux, Edmond B. Devoy, Raymond Elliott, Fred W. Carter, jr.

SECOND REGIMENT HAWAIIAN INFANTRY, NATIONAL GUARD.

(Island of Hawaii.)

Lieut. Col. Harry H. Morehead.

Maj. Donald S. Bowman.

Captains.—George L. Desha, Samuel P. Woods, Allan R. L. Rowatt, John S. Rickard, George Loughton, George H. Washburn, Robert M. Lindsay, A. L. Moses.*First lieutenants.*—James L. K. Cushingham, O. O. Hanson, Alfred Patten, H. Lawrence White, E. N. Deyo, Arthur J. Stillman, Julian Yates.*Second lieutenants.*—Edward A. Campbell, Charles B. Makaul, Albert P. Christian, Andrew T. Spalding, E. K. Kanehailua, W. H. Hill.

(Island of Maui.)

Maj. W. Huffman Young.

Captains.—Henry P. Robinson, jr., Frank A. Lufkin, William K. Kaluakini, Arthur C. Betts.*First lieutenants.*—John W. Kanaeholo, William S. Chillingworth, William K. Scholtz, Gus J. Bechart, S. T. Mookini, Edward E. Blanchard.*Second lieutenant.*—Ralph B. Walker, J. H. Waiwaleo, Foster Robinson.

(Island of Kauai.)

Maj. Ernest W. Kopke.

Captains.—Richard N. Oliver, Henry R. Smythe, Albert Horner, jr., Frank Cox.*First lieutenant.*—William Waiialeale, Theodore B. Buch, Henry Sheldon, jr., James M. Spaulding, William H. Wright, C. D. Edmondson.*Second lieutenants.*—Fred Patterson, M. Riddell, G. A. Hofgaard, Arvin A. Whelan.

WAR DEPARTMENT.

Hawaiian Department.—Col. Lucien G. Berry, Field Artillery, commanding; Capt. H. C. Merriam, acting chief of staff; Col. J. H. McRae, department adjutant; Maj. L. W. Redington, National Guard of Hawaii, assistant to department adjutant; Lieut. Col. Joseph Wheeler, jr., Coast Artillery Corps, in charge of office of department inspector; Maj. J. A. Gallogly, department judge advocate; Lieut. Col. R. McA. Schofield, department quartermaster; Col. R. G. Ebert, department surgeon; Col. R. R. Raymond, department engineer; Maj. C. G. Mettler, department ordnance officer; Maj. J. B. Douglas, department signal officer; First Lieut. H. F. Loomis, in charge of enlisted casuals; Capt. R. H. Duenner, attending surgeon; Capt. J. M. Riggs, assistant to department quartermaster; Capt. F. B. Buckley, assistant to department quartermaster; Capt. C. H. Bonesteel, officer in charge of militia affairs.

First Hawaiian Brigade.—Col. L. M. Brett, Fourth Cavalry, commanding; Maj. I. A. Correll, adjutant.

Department hospital.—Col. F. R. Keefer, Medical Corps, commanding.

Schofield Barracks.—Col. L. M. Brett, Fourth Cavalry, commanding.

Fort Shafter.—Maj. F. C. Bolles, Second Infantry, commanding.

Coast defenses of Oahu.—Col. A. M. Hunter, Coast Artillery Corps, commanding.

NAVAL DEPARTMENT.

Naval station, Pearl Harbor.—Capt. George R. Clark, commanding; Pay Clerk C. F. House, aid to commandant; district communication superintendent, Lieut. J. M. Ashley; engineer officer, Assistant Engineer R. E. Carney; construction officer, Assistant Naval Constructor E. L. Kempton; surgeon, William Seaman; assistant surgeons, T. C. Anderson and D. Corey; supply officer, Paymaster W. T. Gray; assistant supply officer, Assistant Paymaster C. H. Breyer; pay officer of yard and U. S. S. *Alert*, Paymaster George P. Dyer; assistant to pay officer, Assistant Paymaster O. J. Phillips; public works officer, Civil Engineer C. W. Parks; assistant to public works officer, Assistant Civil Engineer R. L. Martin; assistant to captain of the yard, Ensign J. H. MacDonald; radio officer, Ensign A. Prastka; in charge of coaling plant, Ensign F. R. Kalde; pharmacist, T. B. Weaver; commanding officer U. S. S. *Navajo*, Ensign E. R. Peircey; acting boatswain U. S. S. *Navajo*, Louis Rassler.

United States Marine Corps, Marine Barracks.—Commanding officer, Maj. T. M. Clinton; Second Lieut. W. G. Gunn, Second Lieut. E. S. Tuttle.

Officers of submarine force, fourteenth naval district.—Commanding division and K-4, Lieut. J. P. Olding; commanding K-3, Lieut. N. L. Kirk; commanding U. S. S. *Alert*, Lieut. J. C. Thom; commanding K-7, Lieut. H. D. Bode; commanding K-8, Lieut. Edward J. O'Keefe; navigator K-3, Ensign T. M. Vinson; force torpedo officer, Ensign L. O. Alford; medical officer, *Alert*, Asst. Surg. B. P. Davis; pay clerk, *Alert* and submarine force, Pay Clerk W. H. Abbey.

Retired officers, United States Navy and National Naval Volunteers.—Naval censor, Commodore D. H. Mahan; assistant to accounting officer, communications, pay clerk, J. W. Caum; censorship duties, Lieut. Commander W. H. Stroud; in charge naval communication office, Honolulu, Ensign L. W. Branch; accounting officer, naval communication office, Passed Assistant Paymaster C. D. Bishop.

Naval Reserve Officers on active duty in fourteenth naval district.—Special duty in Honolulu, Lieut. William Todd; assistant to engineer officer, Machinist George H. Paul; in charge Kahuku naval radio station, Gunner G. S. Philbrick; engineer department, naval radio station, Kahuku, Machinist G. A. Stepp; operating department, naval radio station, Kahuku, Pay Clerk W. R. Gompf; assistant to accounting officer, fourteenth naval district, Pay Clerk W. A. Anderson; censorship duty, Lieut. J. F. Bowes, Lieut. F. G. W. Cooper; assistant censor, Lieut. Frank E. Ferris; dentist, Dental Surg. A. E. Nichols.

NOTE—Owing to the numerous changes during the past several months, the roster of officers in the Army, Navy, and National Guard of Hawaii, is given as of September 1, 1917.



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